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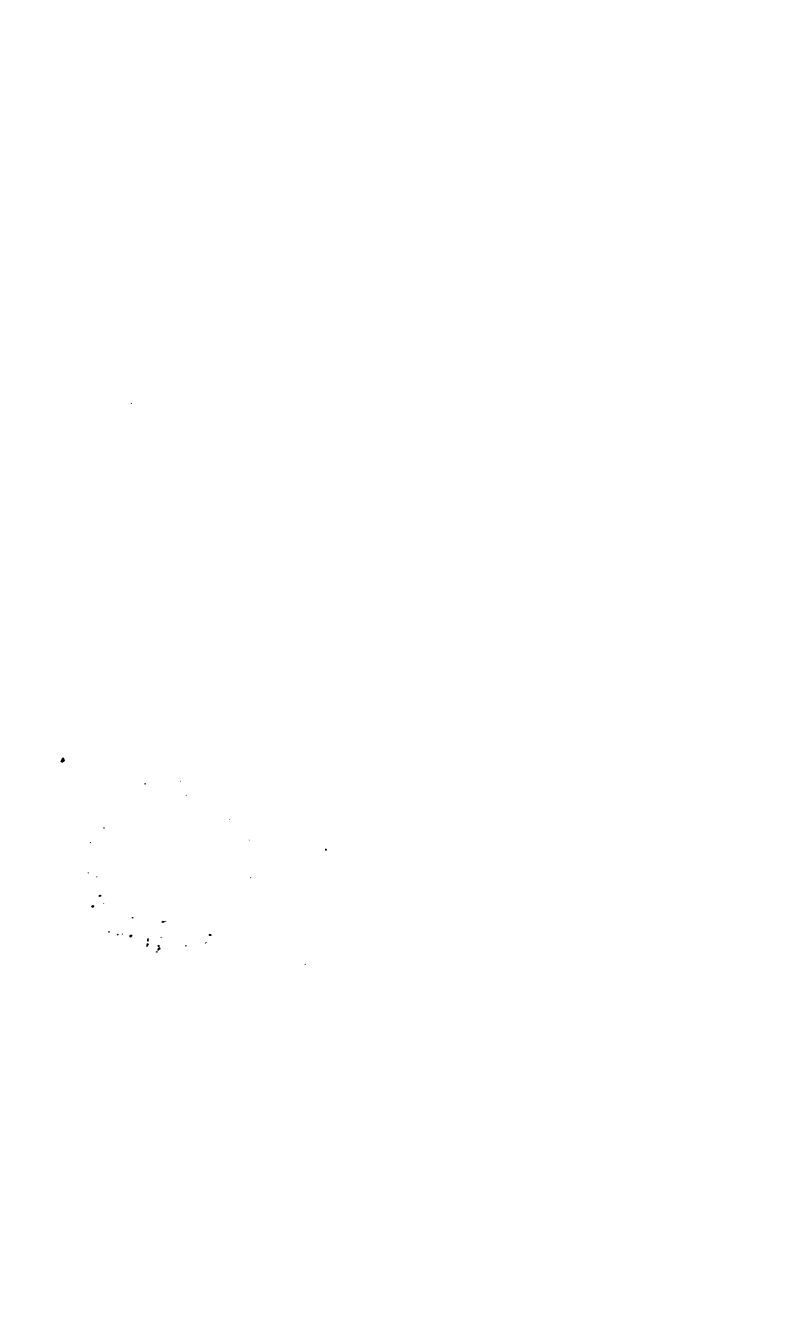
THE
NURSE'S COMPANION
—
CULLINGWORTH

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THE
NURSE'S COMPANION



THE
NURSE'S COMPANION
A MANUAL
OF
GENERAL AND MONTHLY NURSING

BY
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SURGEON TO ST. MARY'S HOSPITAL, MANCHESTER

"Patient through the watches long,
Serving most with none to see."

ROBERT BROWNING



LONDON
J & A. CHURCHILL, NEW BURLINGTON STREET
1876

151 . 0 . 388

TO
THOMAS RADFORD, M.D.

THIS LITTLE MANUAL

Is Dedicated

AS A RESPECTFUL TRIBUTE TO HIS HIGH PROFESSIONAL
STANDING AND VAST EXPERIENCE,
AND IN GRATEFUL ACKNOWLEDGMENT OF THE WARM INTEREST
HE HAS TAKEN IN ITS PREPARATION.

PREFACE.

It has been my aim, in the following pages, to write a plain and practical text-book for nurses, defining the scope of their duties, and entering sufficiently into detail to be helpful to them in their daily work. I trust that those engaged in the training of nurses will find it useful as an auxiliary to their own personal teaching at the bedside; a mode of instruction which no text-book can ever supersede.

I have no doubt that many medical practitioners have, like myself, felt the need of being able to refer nurses to some clear and definite account of the precautions necessary to be adopted in infectious cases. The chapter containing a few simple rules on the subject will do something, I hope, towards supplying this need.

During the preparation of this book, I have consulted a large number of publications bearing on the subject, and have here and there adopted hints from

them. It is next to impossible, in a text-book of this kind, to give full references, and I must content myself, for the most part, with this general acknowledgment.

The whole manuscript has had the advantage of being revised by Dr. Radford, whom I have to thank for many valuable suggestions, especially in the chapters on obstetric nursing.

CHARLES J. CULLINGWORTH.

260, OXFORD STREET, MANCHESTER.

June, 1876.

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THE NURSE'S COMPANION.

INTRODUCTION.

WITHIN the last few years the importance of good nursing has come to be widely recognised. It would be out of place here to speak of the many influences that have been at work in bringing about the increased interest in the question which is observable on all sides. The practical result of it to nurses themselves is that while their position is greatly improved, and their calling more truly appreciated, special training and instruction in their duties have become absolutely essential. The time is not far off when it will be difficult for an untrained nurse to obtain employment.

It has been occasionally hinted that the result of this movement would be to introduce a class of nurses who would be dictatorial and meddlesome, interfering with matters properly belonging to the medical attendant. These fears have, as a matter of course, proved groundless. It has turned out that those nurses who have received the most thorough training are the most obedient to the doctor's wishes, and the most trustworthy in carrying out his directions. A properly educated and intelligent nurse is as important to the welfare of a patient as a skilful medical adviser.

A nurse's special education should be twofold. She should, on the one hand, receive a systematic course of instruction in the nature of her duties. This may be conveyed either by word of mouth, as by lectures or class instruction, or by suitable manuals. On the other hand, the practical carrying out of this teaching should be learnt at the bedside, under the supervision of nurses or sisters who have themselves undergone a special training ; and in the wards of some hospital where the training of nurses is specially provided for and faithfully undertaken. Reading and attendance upon lectures, although useful and desirable, can never take the place of practical training.

Before making choice of nursing as an occupation, a woman should be quite sure that she has a hearty liking for it. The life of a nurse is a life of self-sacrifice. Her duties are often in their very nature repulsive and disagreeable. Patients are too often ungrateful, exacting, and difficult to please, and their friends selfish and inconsiderate. The work entails long confinement, disturbed rest, and constant harass and anxiety. Only an enthusiastic devotion can make all these things bearable. The first qualifications of a nurse then are, fondness for her work, patience, and unselfishness. She should also be in sound health, and of an even temper. People who need her services are generally weakened in mind as well as in body, and are wanting in self-control. Bodily suffering has rendered them irritable. Nurses are none the worse for having themselves passed through a severe illness. They are then better able to understand the peculiar state of mind produced by bodily weakness, and are more likely to pay attention to seeming trifles which

.

really make all the difference to a sick person. They will remember how the banging of a door, the continued creaking of a boot, the letting down of a blind roughly, a whispered conversation, or mysterious voices outside the door, can upset an invalid, and produce an excitement which may be hours in subsiding. The duties of a sick-chamber require to be done very gently, yet with firmness and decision.

Dress, &c.—The dress worn by a nurse while on duty should be plain, neat, and inexpensive; it should be of material that does not rustle (as silk does, for instance), and that can be easily washed. It should, moreover, occupy as little room as possible, and not be long enough to sweep the floor. A light footstep being indispensable, well-fitting slippers or soft house-boots should always be worn. Scrupulous cleanliness both of person and of linen, and a neat and simple style of dressing the hair are points which a nurse should never neglect.

Food.—Many nurses make the mistake of being careless about taking their meals regularly. No good work can be done when the stomach is allowed to remain empty beyond the usual time. The miserable gnawing sensation, which is the outcry of a neglected stomach, has often led to the taking of stimulants, and the ruin of a useful life. No nurse should ever taste spirits. There is no objection to a glass of beer or porter to dinner and supper. Even these are harmful, however, when taken between meals, and should always at such times be respectfully declined. Equally objectionable with the neglect of meal-times is the habit of continually eating morsels of food, so cheating the stomach out of its due allowance of rest.

Sleep.—Except in emergencies, a nurse should take means to insure at least six hours *undisturbed* rest ; otherwise her work will suffer in quality, and she will soon break down in health. Nursing institutions make it one of their stipulations that a certain fixed time shall be allowed for sleep and rest every day.

Conversation.—Nurses are brought into contact with all sorts of people, and necessarily become acquainted with the domestic secrets of their patients. Nothing, however, should tempt them to make these things the subject of conversation. An equal reserve must be shown with reference to the nature of the illness of persons whom they have attended. Some patients are very curious in such matters, and will encourage their nurse to talk about them. With all right-minded people a nurse will best secure confidence and respect by avoiding anything in the nature of gossip. The manner in which she sets about her work should be a sufficient witness to her skill and experience.

Note.—Every nurse should possess a copy of Miss Nightingale's "Notes on Nursing," a book most clearly and pleasantly written, and containing an immense number of hints as to the management of the sick, which can be found nowhere else, and are of the utmost value.

PART I.

GENERAL NURSING.

CHAPTER I.

Sick-room.—It will now and then happen, in the houses of the wealthier classes, that a nurse is asked as to the choice of a room for purposes of a confinement or an illness; it is well therefore that she should know how to make such a selection. Now a sick-room, or lying-in room, should first of all be large and lofty, and as far removed from the noisy street as possible; it should be a quiet room. For this reason it should not be over the kitchen, or within hearing of all that is going on downstairs. It should be light and sunny, and therefore should not have a north aspect; the warmth and brightness of a room have a good deal to do with a patient's recovery.

Ventilation.—There should be a fireplace in every bed-room, not only for the sake of warmth and comfort, but to insure proper ventilation; nothing ventilates a room so well as a fire. A sick-chamber, however, generally requires something more, and if the door be closed, and the patient's shoulders well covered, there is seldom any harm done by opening the window a little at the top, all the day long in summer and several times during the day in winter.

It is common to suppose that opening the door will answer just as well. The outside air, however, let in at the window, is almost always to be preferred, as being fresher and purer than air which has had to pass through other parts of the house before it reaches the sick-room door. In certain kinds of weather, such as extreme cold or fog on the one hand, or oppressive heat on the other, and in the case of patients suffering from some forms of chest-disease, it will be necessary to keep the window closed, and to ventilate by the door. Care must then be taken to freshen the air in the passages as thoroughly as possible before admitting it into the chamber. The point always to be aimed at is to keep the room sweet and fresh, without chilling it or exposing the patient to a draught.

Temperature of Room.—Every sick-room should be provided with a thermometer, which should stand upon the dressing-table or be hung against the wall. Unless special orders are given the temperature should be kept at from 60° to 62°. A higher temperature is necessary when patients are just beginning to sit up than when they are quite confined to bed; this is a matter seldom attended to.

Furniture, &c.—The furniture of the room should be of a kind which does not retain dust and bad smells; those chairs are best which have simple wooden frames with cane bottoms. All woollen draperies are to be avoided. White window-curtains and chintz bed-hangings are preferable to stuff or damask. To a person confined to bed for a long time it is very necessary that the eye should rest on pleasant objects. The windows should be kept clean and bright; ugly

and staring patterns should be avoided in the selection of wall-papers; the pictures should be of a cheerful character and not hung crookedly; and flowers should be placed about the room whenever they can be obtained.

Soiled linen and slop water should never be allowed to remain one instant longer than necessary in the sick-room; and the same rule applies to the chamber-utensil. Slop-pails should never be seen in a sick-room. The vessels to be emptied must be carried out of the room and well rinsed; in the case of the chamber-utensil and night-commode a little clean water should be poured in after the rinsing and left standing in them. To this water a teaspoonful or two of the common clear solution of chloride of lime may be added with advantage. These precautions will do much towards keeping a room sweet and wholesome.

Bed and Bedding.—The bed should never be placed with one of its sides against a wall, as a nurse ought to be able to attend to the patient either from one side or the other. Feather beds are to be avoided if possible, on account of the difficulty of preventing the patient from sinking into uncomfortable hollows. There is no doubt that a good horsehair mattress, with or without a straw paillasse underneath it, is the best for a sick-bed; a patient's habits and prejudices often, however, have to be taken into account. The best modern authorities are against the use of an under-blanket in warm weather, and recommend that only a sheet be spread over the mattress. It should be placed evenly and tucked securely underneath on all sides. At the top it should be long enough to allow of the end being brought down over the bolster.

The upper bed-clothing consists of a sheet, one or more blankets according to circumstances, and a thin light-coloured counterpane. Heavy quilted counterpanes keep in the perspiration and other matters given off from the patient's body, and are most unhealthy; their weight also does harm. In summer nothing can be nicer as an outside bed-covering than a clean white sheet.

Draw-sheet.—In cases of long illness, and after severe accidents and operations, a draw-sheet becomes necessary. It should be smaller than the ordinary sheet, and having been folded into four thicknesses, should reach from the middle of the back down to the knees. A piece of waterproof sheeting is to be placed between it and the under-sheet. The patient's body being slightly raised, the folded draw-sheet, with the waterproof underneath it, is to be passed evenly beneath the body; the soiled sheet having been first of all removed.

Changing of Bed-linen.—The changing of a patient's bed-linen must never be commenced until everything is ready. There are two ways in which an under-sheet may be changed without much disturbance of a patient. One is to roll loosely up the soiled sheet *sideways*, from the unoccupied side of the bed, until the roll can be pressed against the patient's side. The clean sheet, previously rolled loosely up *from side to side*, is then to be unrolled over the uncovered part of the mattress, until the clean roll lies by the side of the soiled one. The patient is now lifted over on to the clean sheet, the soiled sheet taken away, and the spreading of the clean sheet completed.

When it is undesirable to disturb a patient even to

this extent, the second plan is to be adopted. A clean sheet is first to be loosely rolled up *from end to end*. Beginning at the head of the bed, the soiled sheet is to be rolled down from underneath the bolster, and the clean sheet unrolled after it, and arranged in its place. The shoulders of the patient must then be raised a little, and the soiled sheet rolled down from under them, while the clean sheet is unrolled to follow it. The hips, and lastly the legs and feet, are to be gently raised one after another in a similar manner, the soiled sheet taken away at the foot of the bed, and the unrolling of the clean sheet completed. This process is attended with the least possible distress to the patient.

It is unnecessary to say that the clean sheet must previously be well aired and warmed in another room.

Moving of Patients.—A perfectly helpless patient may be moved from one bed to another without the least disturbance, by the following simple plan, provided there be no canopy in the way:—Four persons take each one corner of the under sheet, and, lifting the sheet with the patient upon it, lay both gently down in the middle of the fresh bed which has been wheeled closely alongside.

When patients leave their bed for the first time, it is often desirable that they should be carried, and not allowed to walk to the couch or sofa. A blanket should first of all be spread out upon the couch, wide enough to allow one side to hang over its back, and the other to hang down in front, ready to fold well over the patient, and pillows should be arranged according to liking. Then, if the room be large

enough, the couch is to be wheeled with its head close up to the foot of the bed, so that the attendants, taking the patient in their arms, will simply have to move a few paces to the right or left as the case may be, without having to turn round. Should the room, however, be too small for this arrangement, the couch must be placed alongside the patient's bed, and at a convenient distance from it, with the foot of the couch lying towards the head of the bed. The nurse and her assistant then lift the patient, and wheel slowly round. Whether the duty of carrying the patient is to be undertaken by one person, or by more than one, must depend upon the nurse's strength on the one hand, and the weight of the patient on the other. If the nurse alone is sufficient for this duty, she must support the two knees with one arm, and the broad part of the back just below the shoulders with the other. When two persons are required, one of them supports the neck and upper part of the back, while the other places one arm under the lower part of the back, and the other arm under the two knees. The greatest gentleness must be observed, and the arms must be passed well under the patient before the lifting commences. In those rare instances where the couch and bed are of a nearly equal height, the patient may be allowed simply to roll over from the one to the other. When a patient is allowed to be placed in a sitting posture, an easy chair should be selected with arms and a low seat, and a footstool should be provided for the support of the legs. If the nightdress is to be put on again on going back to bed, it should be taken into another room to be aired, and, in the meantime, the bedclothes should be turned

freely down, so as to allow the bed to be thoroughly ventilated during the time it is unoccupied.

Washing.—The hands and face of the patient should be washed every morning with soap and warm water; and the hands may be washed again, once or oftener during the day. Once a week, during a long illness, a warm bath should be given, or, when this cannot be done, the whole body should be sponged with soap and warm water, care being taken to uncover only one portion of the body at a time.

Warmth to the Feet.—A nurse should be constantly watchful about the warmth of the patient's feet. Whenever they are found to be cold, an india-rubber or earthenware foot-bottle, containing warm water, should be wrapped in a piece of thick flannel and applied to them. These foot-warmers should never be so hot as to be uncomfortable to the nurse's own hand, and should be renewed every eight hours. Morning is the time when they are most frequently required, and, in the hurry of other work, this is unfortunately just the time when these little matters are in danger of being forgotten.

Cleansing the Teeth.—If strong enough, a patient should use a toothbrush and a little camphorated chalk, or other tooth-powder at least every morning. When too ill or weak for this to be done, the nurse should tie a little bit of soft lint at the end of a bit of stick, and clean her patient's teeth with warm water, to which a little Condyl's fluid has been added. During sickness, morsels of food and other matters are sure to accumulate around the teeth, and if not removed, cannot but become offensive both to the patient and those about.

CHAPTER II.

Administration of Food.—The frequency with which food is to be given, and also its kind and quantity, are in every case determined by the medical practitioner in attendance. When a patient is well enough to take solid meals, they are generally served at intervals of four hours. Those who are only able to take fluids, require feeding in small quantities and more frequently. The most usual plan is to give some kind of liquid nourishment, in stated quantities, every two hours; in severer cases, however, it must be administered every hour or even every half hour. A golden rule of nursing is, never to wake a sleeping patient. Like most other rules, this is not without exceptions. During the long sleep that overtakes a patient after many days and nights of wakefulness, nourishment must be given at the proper hour, the patient being aroused for that purpose.

A nurse should always be quite sure that she understands the doctor's directions. Whenever the orders are at all difficult to remember, she should ask him to write them down for her; and in order to carry them out with the strictest punctuality, she should then take pencil and paper and note down for her own guidance, the hours at which nourishment, stimulants, and medicine, respectively fall due. If she places a little mark against each of them when it

has been duly given, the paper will serve as a faithful report of what the patient has had, and will be a very great help to the medical attendant. The record may be made still more useful if, in addition to these particulars, the nurse also puts down the time during which the patient slept, the hour when the bowels were opened or when urine was passed, and any other occurrences with which the doctor ought to be made acquainted.

Stimulants should of course never be given except by the direction of the doctor; and the quantity ordered must always be carefully measured in a graduated measure-glass.

All vessels in which food is cooked or served, should be scrupulously clean. They should be washed, dried with a linen glass-cloth kept specially for the purpose, and put away the moment they are done with. The bed-room fire must never be used for cooking purposes; when this rule is neglected, not only does the patient's appetite suffer, but the air of the room becomes impure, close, and unwholesome.

In all instances where the patient is too ill, or is forbidden, to sit up in bed, a feeding-cup with a curved spout should be used; a clean towel being at the same time pinned round the neck. In cases of extreme weakness, a glass tube bent at a right angle, with one end in the vessel containing the food, and the other in the patient's mouth, will enable fluids to be sucked up with scarcely any effort.

When repeated vomiting interferes with the giving of food, the proper course is to withhold it altogether for an hour or two so as to allow the stomach a little rest. Then a very small quantity, for example, a

table-spoonful or even a tea-spoonful, of iced soda water, or a mixture of equal parts of milk and soda water, should be tried, and, if this be kept down, it should be repeated every ten minutes or quarter of an hour. As the sickness abates, the interval may be cautiously lengthened and the quantity of fluid increased, until the patient is able to come back to the customary diet. In these cases of persistent sickness, small lumps of ice, given to the patient to suck from time to time, relieve the distressing thirst and often help, moreover, to allay the irritability of the stomach. There is a knack in breaking a block of ice which it is useful to know. It consists in splitting off a piece of the size needed by means of a strong pin. In this way it is done very easily, without noise, and without waste. Only a small quantity of ice must be kept in the sick-chamber, the remaining stock being placed in the ice-chest, if there happens to be one, and, if not, folded in a piece of thick flannel, and carried into the cellar, or some equally cool place.

Serving of Food.—The quantity of food served up for the sick should always be less than is required rather than more, and it should be presented to the patient in the cleanest and most tempting manner possible. Many an invalid's appetite disappears entirely if the greatest care be not exercised in these little points. It is always better that a second supply should be asked for, rather than that a considerable portion should be sent away. When a meal is finished, all that remains over should be cleared away at once. Patients soon come to loathe the very notion of eating when fragments of food are kept perpetually before their eyes.

When a milk-diet is ordered, it is a good plan to set aside, night and morning, a jug containing a certain known quantity of milk; this being kept for the patient's sole use, the doctor can always be informed of the exact quantity the patient has been able to take. Milk should always be boiled before it is used; it cannot then be, what in so many recent outbreaks of fever it has been, a carrier of infection.

Without unduly burdening my pages with details of sick cookery, I think it will be well to give directions as to the best way of preparing a few articles of food and drink, which, in a sick or lying-in-room, are in almost every-day use. There is a right way, and there is a wrong way of making even such simple things as oatmeal gruel and beef-tea.

Oatmeal Gruel.—The time-honoured basin of gruel is very often spoiled, especially by English people, from not having been boiled a sufficiently long time. The Scotch are, in this respect, much more wise.

The proper plan is to take two table-spoonfuls of oatmeal, and mix them smoothly with a little cold water. Add this to half a pint of cold water in a saucepan, stirring all the time, and boil slowly for at least half an hour. An additional quarter of an hour's boiling will make it all the smoother. It is then to be strained, and a little salt or sugar added according to taste.

Boiled Bread and Milk.—Stale bread should be used for making boiled bread and milk. Small square pieces, cut so as to be of nearly equal size, are to be placed in a basin that has been scalded out. Boil the milk, and the moment it rises pour it over the bread. Cover the basin with a plate for ten minutes.

Rice-caudle.—Rice, before being used for cooking, requires washing in cold water. To make rice-caudle, wash a table-spoonful of rice; boil half a pint of water in a saucepan over the fire; put in the rice, and boil until it is quite smooth and thick enough to be agreeable. Add a little powdered nutmeg or cinnamon, and some sugar.

Arrowroot.—A dessert-spoonful of arrowroot is to be mixed with a small quantity of cold water; then add gradually half a pint of boiling water or boiling milk, and boil for five minutes, stirring the whole time. Flavour and sweeten it according to taste.

Sometimes wine or brandy is ordered to be given in arrowroot. When this is the case, it is better to make the arrowroot with water. The stimulant should be added after the boiling.

Sago and Tapioca should be soaked in cold water for five or six hours, and then allowed to simmer in the same water until the grains are clear and jelly-like.

Beef-tea.—To make good strong beef-tea, mince as finely as possible one pound of rumpsteak, or good, lean juicy beef, from which the skin, fat, and gristle have been removed; put it into a saucepan with a pint of cold water, and let it soak for an hour; then let it simmer near a slow fire for seven hours; take off the scum, boil quickly for five minutes, strain, and add a little salt and pepper.

A ready method of preparing beef-tea is to use the extract of beef sold by the chemists. It has rather a burnt taste, and is less nutritious than ordinary beef-tea, but, on the other hand, it is quite free from fat, which, in many illnesses, is a point of great impor-

tance, and one that cannot be insured in home-made beef-tea, even by careful skimming. A small teaspoonful of the extract is to be put into a breakfast-cup, previously scalded out, along with a little salt and pepper, and half a pint of boiling water poured over it.

Chicken-broth.—Remove from a chicken the skin, lungs, liver, &c.; cut it up into thin slices; pour a quart of boiling water over it; allow it to simmer, lightly covered, near a slow fire for two hours; and then let the pan stand on the hob for another half-hour before straining.

Whey.—In cases where there are great thirst and prostration, white wine whey is frequently ordered, and is very valuable. It is made with Cape, or some other of the lighter and cheaper sherries, in the following manner:—Half a pint of new milk, slightly sweetened, is boiled in a saucepan, and a glass of the wine poured in just at the moment of its rising. After being allowed to boil up again, the pan is set on one side until the curd separates, when the whey can be poured off. No stirring is necessary to hasten the process.

Whey may also be made by means of rennet, or by stirring up with a pint of boiling milk, sweetened, a small wineglassful of vinegar, boiling for a quarter of an hour, and straining.

Toast and Water.—The best drink next, perhaps, to filtered water, is well-prepared toast and water. A quarter of a pound of bread, with the crust left upon it, is to be slowly toasted until its colour is deep brown. During the toasting the bread must be frequently turned; it should first be held at a little dis-

tance from the fire, and afterwards brought nearer to it. Place the toast in a large scalded jug ; pour over it three pints of boiling water ; let it stand, lightly covered, until it is cold, and strain.

Barley-water.—Wash a table-spoonful of pearl barley several times in cold water, which must be thrown away. Put the barley into a pan, along with a little white sugar and thin rind of lemon ; pour a pint and a half of boiling water over it ; let it simmer a little while ; add the juice of half a lemon, and strain.

Half a pound of sliced apples, unpeeled, may be added to the other ingredients.

Note.—The following books, amongst others, may be specially mentioned as containing a number of excellent receipts for the preparation of articles of diet for invalids :—

CUST (THE HON. LADY), “The invalid’s own book : a collection of recipes from various books and various countries.” Lond. Longmans, 1853.

RIDGE (J. J.), “Diet for the sick, being nutritious combinations suitable for severe cases of illness.” Lond. J. & A. Churchill, 1875.

Dietary for invalids : an appendix to “Ringer’s Handbook of therapeutics.” 4th edit. Lond. H. K. Lewis, 1874.

HOOPER (MARY), “Cookery for invalids, persons of delicate digestion, and for children.” Lond. Henry S. King & Co., 1876.

CHAPTER III.

Administration of Medicine.—The custom of ordering medicine in tea-spoonfuls and table-spoonfuls still lingers, although there are signs of a disposition amongst medical men to use more definite terms. Spoons vary so much in size, and, as a rule, hold so much more than those used by our great-grandmothers, that a spoonful no longer conveys the same meaning as it used to do. On account of this uncertainty as to size, and to insure uniformity and accuracy, measure-glasses must always be used instead of spoons in the administration of medicine. They are sold by all chemists, and are marked by a number of lines corresponding with the doses generally prescribed, commencing at a tea-spoonful, and running up to four table-spoonfuls. Now, as a doctor always means by a tea-spoonful exactly one fluid drachm, by two tea-spoonfuls two fluid drachms, by three tea-spoonfuls three fluid drachms, and so on, and as one table-spoonful always signifies exactly half a fluid ounce, two table-spoonfuls one fluid ounce, four table-spoonfuls two fluid ounces, &c., it does seem as if it would simplify matters very much if the directions were given, not in spoonfuls, but in fluid drachms and fluid ounces. Meanwhile, if the exact fluid measure intended to be understood when spoonfuls are ordered is borne in mind, a measure-glass

which only marks drachms and ounces can be used just as well as the other kind of measure-glass, which is divided into tea-spoonfuls and table-spoonfuls. It is of great importance when measuring out medicine to hold the glass perfectly straight, otherwise a little more or a little less than the proper dose will be poured out. The measure-glass requires to be taken hold of by its flat part or base, and to be so held during the pouring in of the medicine that the marks on the side are on a level with the nurse's eye. Medicine must never be poured into a measure-glass that is resting on a table or mantelpiece; the only plan to insure accuracy is to hold it up in the left hand in the manner I have described. When drops are prescribed, they should be measured in little glasses marked for the purpose, otherwise, owing to the different sizes of drops, according to the nature of the medicine and shape of the bottle neck, all is haphazard. If no special directions are given as to the time of administering the medicine, it is proper to give it about midway between two meals; it should not be given until an hour has elapsed since food was last taken, and so, too, an hour should intervene between the time of giving the medicine and the next meal following. Many powerful remedies—as, for example, the preparation of iron and of arsenic, and cod liver oil—are found to agree better when given on a full stomach; they are therefore usually ordered to be given directly after a meal. There are several ways of concealing to a certain extent the taste of cod liver oil. The two best with which I am acquainted are (1) mixing it with a little milk that is just new-milk warm, or (2) *pouring out half an ounce or an ounce of the com-*

pound decoction of sarsaparilla, and allowing the oil to float upon it. I think it is the liquorice in this decoction that so successfully masks the taste of the oil. Castor oil may be floated on a little cold water and a tea-spoonful of brandy poured over it, or it may be given upon a little syrup of bitter orange peel, or syrup of ginger. By any one of these three methods the taste is pretty well hidden. Preparations are sold under the name of "palatable" cod liver oil and "palatable" castor oil. I believe they are quite reliable, and may safely be given if the patient prefers them. Separate measure-glasses should be kept for these oily medicines.

When effervescing medicines are ordered, they are to be given in a tumbler. The quantity of lemon-juice or of the acid mixture, as the case may be, is to be first measured and poured into the tumbler; then, the measure-glass having been wiped, or a clean glass taken, the alkaline medicine is to be measured out, and quickly added to the lemon-juice or acid solution which is already in the tumbler. By proceeding in this order a more perfect mixture of the two fluids is insured, and the draught is rendered more agreeable than if the acid be added last.

Pills.—A curious fact about the swallowing of pills is that a small pill gives more trouble than a large one. If the patient experiences any difficulty in taking a pill, it may be put into a morsel of bread or mixed with a little preserve, a draught of water being taken to wash it down. The French method is to "put a small piece of damped rice paper into a table-spoon, and then fold it round the pill or pills. The spoon is then filled with water, and placed by the

sister well back in the throat of the patient, who swallows the mass without difficulty.”* This plan of putting the medicine into a spoon and placing it far into the mouth is a very good one to adopt in the case of children, and is moreover useful to be borne in mind when dealing with patients who are unconscious or extremely weak.

Powders are an unpleasant form of medicine at the best. They may be given in a little treacle or preserve. Sometimes they are ordered to be taken suspended in water, and, now and then, to be placed dry upon the tongue. The nurse should ask the medical attendant how he wishes powders to be administered, if the directions are not given on the label.

Suppositories are little masses of the shape of a tiny sugar loaf, which require to be passed into the bowel. They are made up of some material which melts, leaving the medicine contained in the suppository free, in the bowel, where it becomes absorbed. These are generally passed by the patients themselves. Where from any cause this cannot be done, the patient is brought to the edge of the bed, and placed on the left side, with the knees well drawn up to the body. The nurse then, having anointed her right forefinger, the nail of which should be cut quite short, passes the suppository into the bowel, following it gently with the finger, so as to insure its passing at least an inch up the canal. The finger must be withdrawn with similar gentleness, otherwise the

* Lees (Florence S.), “Handbook for hospital sisters,” edited by H. W. Acland, M.D. London, 1874, p. 110.

suppository will be in danger of being expelled at the same time.

Medicated Pessaries are like large suppositories, and are for the purpose of being passed into the vagina. If the patient cannot pass them for herself, the nurse must do it for her in a manner similar to that just recommended when speaking of suppositories.

Subcutaneous Injections.—A comparatively recent mode of administering medicine is by injecting it in the form of a few drops of liquid into the loose tissue immediately beneath the skin. These subcutaneous injections should, as a rule, be undertaken by the medical attendant; but as he may, under certain circumstances, leave directions for the nurse to give them, it will be convenient for her to know how that should be done. The fluid to be injected is drawn up into a little instrument called the subcutaneous or hypodermic syringe, the sides of which are of glass and are marked to show the number of drops, while the lower end is supplied with a screw, upon which can be fixed the little perforated needle used to pierce the skin. If bubbles of air are sucked up along with the fluid, the syringe should be held perfectly straight, upside down, the bubbles coaxed by a little tapping to the upper part of the instrument, and then forced out by pressing up the piston. When the required number of drops has been drawn up, free from air, a fold of skin is pinched up between the finger and thumb of the left hand, the needle of the instrument is pushed quickly into the fold and moved about a little to make sure that the point has passed fairly through the true skin and plays freely in the loose tissue beneath, and then the fluid is slowly injected.

The needle is now rapidly withdrawn and the finger placed over the puncture for a few seconds to restrain any tendency in the fluid to escape. The whole operation, if done dexterously, is all but painless. The places usually selected for injection are the upper part of the arm between the shoulder and elbow, or the back immediately below the shoulder-blades.

CHAPTER IV.

Enemata.—Injections into the bowel, or enemata, are given for the purpose of emptying the bowel of its contents, and of administering medicine or nourishment.

A capital contrivance called an irrigateur is the best instrument, and is very generally used by the French. Its use has not become popular, however, in this country, and as our ordinary instruments answer very well, I shall confine myself to them in the following directions. Of the instruments in common use the syringe known as Higginson's is the simplest. It consists of an oblong bag of india-rubber, which opens by valves, one at each end, into two india-rubber tubes. One of these tubes terminates in an ivory or bone nozzle, with a shoulder-piece, for introducing into the bowel; the other is fitted at its extremity with a perforated metallic cap for drawing up the fluid to be injected. When the instrument is not in use, it should not be put away in a box or drawer, but hung up by a loop fastened round the metal end, which causes both the valves to lie open, so that any remaining fluid readily runs out. Whether this or the enema-pump be selected, a quantity of warm water should be made to pass through before using; this precaution tells us whether or not the apparatus is in good working order, secures the warming of the instrument, and serves to drive out the contained air

which otherwise would be pumped into the bowel, thereby making an inconvenient noise, and probably causing much annoyance to the patient. This having been done, the fluid to be injected, which should have a temperature of about 85°, is placed in a jug upon a chair close to the side of the bed; the patient is told to lie on the left side, with the knees drawn up, at the edge of the bed, which is then protected by a macintosh and folded sheet; the nozzle of the syringe, previously oiled, is passed gently into the bowel up to the shoulder-stay, and held in position by the nurse herself in the case of Higginson's apparatus being used, and by an assistant when the instrument is a pump. If the aperient action of the enema be required, a pint or more of the fluid is now gently pumped into the bowel. As soon as any griping is complained of, the nurse rests for a few seconds, when the pain will cease, and she may finish the injection. After withdrawing the nozzle, a folded towel is pressed against the anus, and the patient enjoined to endeavour to retain the fluid for at least five minutes, when it may be allowed to pass away into a night-commode conveniently placed. Should any difficulty be experienced in injecting, the tip of the nozzle will in all probability either have become imbedded in a mass of solid fæces, or entangled in a fold of the lining membrane of the bowel; it will be well, therefore, partially to withdraw the nozzle and alter its direction slightly, when the fluid will generally be found to pass readily enough. The most useful purgative enemata are soap and water, a table-spoonful of salt in a pint of warm water, and a pint of thin oatmeal-gruel.

Astringent enemata are generally ordered for the relief of incessant straining during an attack of diarrhœa or dysentery, and are best given by means of a simple india-rubber ball syringe, capable of containing about two ounces of fluid. Both in astringent and nutritive enemata it is necessary to inject only a very small quantity, in order to insure its being retained. For the relief of pain, or incessant straining, or obstinate diarrhœa, laudanum, in quantity determined by the medical attendant, is added to about two ounces of thin starch made with cold water. Other medicines may, however, be prescribed, but in any case the quantity injected should be small, and the operation performed very slowly. Enemata consisting of milk, the yolk of egg, strong beef-tea, with or without brandy, are sometimes ordered to be given regularly where food cannot be taken by the mouth, and have frequently been the means of saving a life. Here again the quantity injected at one time should be small (not exceeding four ounces), lest it should be expelled too soon. An excellent formula for a nourishing injection is the following:—Three ounces of strong beef-tea, with half an ounce each of cream and pale brandy. Enemata do not need to be constantly varied like food given by the mouth, for there is no sense of taste to be gratified.

The Female Catheter.—There is an instrument constructed purposely for drawing off the urine in the female. It is either silver or plated, is furnished with a plug or other means of stopping the flow, is very slightly curved, and is generally capable, by means of an arrangement like that of a telescope, of

being drawn out to a greater length than the four or five inches which it measures when closed. This sliding arrangement is intended so to prolong the tube, that its extremity or little spout may reach far enough to convey the urine into a small chamber-utensil or other suitable receptacle, placed on the bed between the patient's thighs.

As a matter of practice, however, it will be found easier and more convenient to use a cheaper contrivance—namely, a gum-elastic male catheter of a moderate size (No. 8 answers very well), to the end of which is attached a piece of india-rubber tubing of a convenient length. The chief advantage of this apparatus is, that the urine can be received into a vessel placed on the floor, or on a chair by the side of the bed, where it is not so much in danger of being upset as when it has to stand on the bed between the thighs, and where it can be emptied from time to time if necessary without any risk of soiling the bedclothes. In case of the utensil becoming filled before the bladder has emptied itself, it is only necessary to compress the flexible tubing between the finger and thumb for an instant while the contents are being poured away, a proceeding much more simple and easy than the turning of the stopcock of the metal catheter. The flexible catheter has also this important advantage, that it necessitates much less exposure of the patient. So much then for the instrument; now as to the best way of passing it. The patient lies on her back, conveniently near to the right side of the bed, and draws up her knees; the nurse then, passing the right hand under the right knee of the patient, if possible, though this can only be done after long practice, without removing

the bedclothes, introduces the middle finger into the vagina, while with the forefinger she feels for the opening into the urethra, which lies just above the entrance into the vagina. There is a little soft fleshy projection at the mouth of the urethra which is a good landmark; having found this, the nurse will have little difficulty in making out the small round opening of which she is in search. The catheter, previously oiled, is then taken in the left hand, passed under the patient's knee, and guided into the little orifice by the forefinger which has already been employed in making out its position. The female urethra, unlike that of the male, is very short and nearly straight upwards, so that when once the point of the catheter has entered the urethra, the instrument slips readily forward into the bladder. The nurse knows that the catheter is in the bladder by the urine commencing to flow through the tube. No force should be used in performing this delicate little office; if the instrument does not go in easily, it is a proof that the point has not exactly hit the mouth of the urethra, and a further search must be made. The catheter often shows a disposition, in inexperienced hands, to slip into the larger opening just below the urethra, that of the vagina; the middle finger of the nurse's hand being in the vagina, will at once tell her if the instrument has taken this course.

In withdrawing the catheter, the spilling of drops of urine upon the patient's skin or the bed may be entirely prevented by pinching the end of the elastic tube near the basin, so as to close it during the withdrawal; or, in the case of a metallic catheter, by turning the stopcock, or closing the mouth of the

tube with the finger. If, after adopting this precaution, the catheter is held vertically over the basin, and the tube re-opened, a few drops of urine will run out at the lower end. This is a point of special importance after confinement, when the parts in the neighbourhood of the urethra are bruised and sore.

I have entered here somewhat fully into the details of this little operation, because I hold it to be one of the most important qualifications of a good nurse that she should be able to perform it skilfully.

When the nurse has not had sufficient practice to enable her to pass the instrument under the bed-clothes, she must tell the patient to lie on her left side, near the edge of the bed, with the knees drawn up, and then look for the urethra with or without the help of a candle.

Vaginal Injections are best administered by means of a Higginson's syringe, to which a vaginal tube has been attached. This tube is sold with the syringe, and is wider than an enema nozzle; it is five or six inches long, and has a number of little holes near the end. The same precaution as was enjoined in the case of the enema apparatus must be adopted before using a vaginal syringe—viz., a quantity of warm water must be pumped through it previous to its introduction.

The fluid ordered to be used as an injection consists sometimes of simple water, either warm or cold according to circumstances, but more frequently of warm water, with which a little Condyl's disinfecting fluid has been mixed, in the proportion of a drachm (tea-spoonful) of the fluid to a pint of

warm water. Occasionally special lotions are prescribed. The best mode of giving these injections is as follows :—The patient lies on her back, near the bed's edge ; a round earthenware bed-pan is placed under her for the purpose of catching the returning fluid. This plan also serves to raise the breech a little, and so insures the fluid being retained in contact with the vaginal wall a little longer than when that part rests upon the bed. The knees are drawn up, the vaginal tube, previously oiled, is passed under the right knee and well into the vaginal canal, where it is held either by the patient herself, or by the right hand of the nurse ; the other end of the instrument hangs down to the bottom of a jug which has been placed by the bedside, and contains the fluid to be injected ; and then the ball is gently squeezed, allowed slowly to refill, and squeezed again, until the desired quantity has been injected. In withdrawing the tube, the point should be turned upwards, lest some of the fluid remaining in the instrument should run out and wet the bed-clothes. After washing out the syringe by pumping clean water through it, it should be held up by the metallic end so as thoroughly to empty it, and should be hung up in the same position on a nail in the bath-room or dressing-room until it is again required, exactly as was directed in the case of the enema apparatus.

Bed-pans should be made of earthenware, never of metal. Two forms are in common use, the round pan, and the slipper. Perhaps the former is the more generally serviceable ; the slipper, however, will be found to be preferred by a certain number of

patients, and, where it is undesirable that the patient should be raised, is exceedingly useful. Both require a flannel cover which may be fastened by drawing a tape through the hem, and tying the ends tightly. The round pan is simply passed from the side of the bed underneath the raised body of the patient into its proper place; the slipper is held by its handle, and the patient's knees being drawn up, is passed under the knee nearest to the bedside, and the thin portion slipped gently up under the lower part of the back. After having been removed, the pan should immediately be covered over with a cloth or lid, and carried out of the room to be emptied and well rinsed with water. After the rinsing, a little clean water should be placed in the bottom of the pan, and allowed to remain in it. It will help to keep the room free from smell if a spoonful or two of the clear solution of chloride of lime be poured into the pan immediately before, and again immediately after it is used. In fevers, and other infectious disorders, this precaution must never be neglected (see Chap. IX.).

Slipper bed-pans are the most convenient vessels for receiving the urine of female patients. For males, special urine bottles can be obtained; into these also a little clean water should always be poured after rinsing them.

CHAPTER V.

Fomentations are often useful in relieving pain. The proper material to choose is coarse open flannel. In hospitals, fomenting flannels are used double, and are stitched together at the ends, but not at the sides. These are dipped into boiling water: wrung out by means of a wringer, or by slipping in two wooden rollers, one at each end: shaken out for a moment: and laid upon the skin. A piece of waterproof sheeting, large enough to completely cover the flannel, is then placed over it. If these appliances are not obtainable, the flannel must be wrung out in a rough towel, and after being shaken out and laid upon the part, must be covered with a sufficiently large piece of thick, dry, warm flannel. Fomentations require changing every quarter of an hour; a fresh one being in readiness before the other is removed. Sometimes they are ordered to be sprinkled with a few drops of laudanum or turpentine, before being applied.

Medicated waters, such as poppy-head, marsh-mallow, or chamomile water, are occasionally substituted for plain water. A quarter of a pound of any one of these will be the proper proportion to boil in three pints of water down to two pints.

A double fold of wet lint, covered with a piece of oiled silk, makes the best continuous fomentation.

Poultices are made of different substances, according to the effect required.

Soothing poultices are generally made of linseed-meal or of bread.

To make a *linseed-meal* poultice, put a little boiling water into a basin previously scalded, and then add little by little a sufficient quantity of linseed-meal to make a poultice of firm consistence, stirring well the whole time. When it is properly mixed, spread it by means of a spatula dipped in hot water upon a piece of linen or cotton, or upon tow, leaving a margin of cloth or tow all round to be tucked back over the linseed. It is well to hold it near one's cheek for a few seconds in order to ascertain that it is not too hot; the hands are not sufficiently sensitive to give that information. After being applied to the part, the poultice should be covered, just like a fomentation, with a piece of oiled silk or mackintosh sheeting; it should be renewed in from six to eight hours.

A *bread* poultice is made rather differently. To some boiling water placed in a basin which has been scalded out, gradually add coarse bread-crumbs and stir them well. Then cover the basin with a plate, and let it stand in front of the fire for five minutes before the poultice is spread.

Yeast poultices are used to stimulate an indolent ulcer or wound, and are made thus:—A quarter of a pound of flour or linseed-meal is mixed with two ounces of yeast or beer-grounds; the mixture is then heated in a pot and constantly stirred until it is warm enough for use.

A *mustard* poultice should be made by mixing

mustard with warm, but not boiling water, until it is smooth and consistent, and applied on a piece of rag or brown paper, with or without a single layer of muslin between the mustard and the skin. Mustard leaves and mustard tissue are now frequently used instead of a poultice; directions for using them are always to be found on the wrapper. A good irritating application is made by sprinkling dry mustard over an ordinary poultice of linseed meal.

A *charcoal* poultice, which is an effective application where there is a bad smell from the part, is made thus:—Soak two ounces of bread-crumbs for a few minutes in half a pint of boiling water; add to an ounce and a half of linseed meal, a quarter of an ounce of wood charcoal; mix all these gradually together, and when the poultice is spread, sprinkle another quarter of an ounce of charcoal over it before it is applied. When poultices are to be applied to the breast or abdomen, a hole should be cut in the centre so as to leave the navel or nipple uncovered.

Cold Lotions.—The best method of applying cold continuously to any part is, to cover it with a single layer of lint or thin linen, wrung out of cold water, and laid smoothly on without any covering. This should be dipped in a basin of cold water from time to time and reapplied; or should communicate, by means of a piece of worsted, with a jug of water placed on a higher level, so that it may act as a siphon. Evaporating lotions must never be covered with oiled silk or bandage, or in fact with anything; and a nurse should always take care, where these are ordered, to protect the bed underneath by means of a piece of waterproof sheeting. Where the application

of cold is intended to induce contraction of the womb and so arrest uterine hæmorrhage, it is important to remember that it will utterly fail to accomplish the desired object if it be applied continuously. It is a sudden impression upon, or shock to, the nervous system that is wanted in these cases, and not any local action of cold; the cold therefore must be applied suddenly and as suddenly withdrawn. This will be explained in greater detail further on. Occasionally a nurse is directed to apply ice to the head. This is best done by placing a lump of ice in a cup-shaped sponge, and carrying this repeatedly round the head; as the ice melts and the sponge becomes saturated, the water must be squeezed out, and the process repeated. Another, but less satisfactory plan is partially to fill a bladder with ice, tie its neck securely, and renew the ice as soon as it becomes melted. The bladder should be arranged so as only just to touch the head.

Water-dressing.—The method of applying wet lint, that I have just described, is not that which is understood by the phrase water-dressing; in which the lint is generally applied of two or more folds in thickness: dipped into water: wrung out: put on so as to cover the wound completely: and then covered over with a piece of gutta-percha tissue or oiled silk, which must be so arranged as to overlap the lint on all sides, and preserve it warm and moist. The mode of keeping this most soothing and valuable dressing in position, varies according to the part affected; sometimes it is best done by strips of adhesive plaster, sometimes by bandaging, sometimes by a folded handkerchief, and so on. The dressing needs renewal about three

times a day; morning, afternoon, and last thing at night.

Lotions are applied exactly in the same way as just directed for simple water.

Ointments are applied to some kinds of sores, such as that which is made by a blister. They require spreading smoothly on the non-fluffy side of a piece of lint, cut to the required size, and must be changed twice a day, or oftener, according to the amount of discharge.

Blisters.—Some medical men prefer raising a blister by the old-fashioned blistering-plaster; others order the part to be painted with blistering fluid. The blistering-plaster should not have a margin of adhesive plaster to keep it in place, for as soon as blisters begin to rise under the plaster, the adhesive border causes so much dragging pain that the patient often complains more loudly of that than of the blister itself. A pad of cotton wool, and a handkerchief or a turn or two of bandage will be generally enough to secure the plaster in its place. It requires to be kept on for a period varying from six to twelve hours, according to the character of the patient's skin and the situation of the part to which it is to be applied; it must be removed very cautiously so as not to tear the cuticle off with the plaster. Any blisters that have formed must be snipped with scissors at the most depending part and the fluid allowed to run out into a cup held to receive it. The application of a warm poultice will often increase the effect of a blister, while it soothes the irritated skin. If a poultice be unnecessary, the surface should be covered with a dressing of zinc or other

prescribed ointment, which requires renewing at first three or four times a day and afterwards less frequently. The first dressing should be prepared before the blister is removed.

If blistering fluid has been painted on, the part should be lightly covered with lint or cotton wool, or with a linseed poultice, until the cuticle is raised by the pouring out of the fluid serum beneath it, when the fluid must be let out in the manner already described and the surface dressed with ointment.

Leeches.—The part to which leeches are about to be applied should first be washed with soap and tepid water and thoroughly dried. The leeches should be handled as little as possible. If they do not take hold readily when held against the part upon a napkin or towel, smearing the skin with a little milk will often entice them. But the best and surest method of proceeding is to apply them in their own proper element, water. It can easily be done thus: the leeches are put into a wineglass containing water, which is covered over with paper and inverted on to the part; the paper is now withdrawn and a sponge held beneath the glass to absorb the water as it escapes. As soon as they have fixed themselves the glass is taken away. When the leeches have done their work, they usually drop off; now and then, however, they are disposed to prolong their stay, and in that case the sprinkling of a little salt on them will cause them to release their hold.

As a general rule it is undesirable to use leeches more than once.

If the direction is given to encourage the bleeding after the leeches are removed, fomentations must be

applied one after another for half an hour, or whatever length of time is ordered. When leech-bites continue to bleed too long, the hæmorrhage is to be arrested by pressing a little pledget of lint on to the spot, and holding it there for a few minutes. Should this not succeed, a morsel of cotton wool should be dipped in tincture of iron and applied, or a point of lunar caustic held firmly in the little opening for a minute or two.

Dry Heat.—For the relief of griping pain in the bowels, stitches in the side, and some other sharp pains of a similar character, a nurse will do well to apply some form of dry heat until she receives special directions from the medical attendant. This may be effected by means of stomach-plates, or india-rubber bottles containing warm water, wrapped up in a piece of white flannel, which, by the way, is a more satisfactory non-conductor of heat than coloured flannel, and should invariably be preferred. If these appliances are not at hand, bran, made hot by placing it in a basin in the oven, and covering the basin with a plate, may be put into a woollen stocking or a flannel bag, and applied to the suffering part; a piece of flannel being thrown over the bran-bag, so as to preserve the heat. Hot salt and an oven shelf well enfolded in white flannel, are also ready and efficacious methods of employing dry heat.

CHAPTER VI.

Bed-sores.—Whenever a patient is likely to be confined to bed for any length of time, it is absolutely necessary to keep a strict watch over the condition of the skin of the back and hips, and the nurse should very early be diligent in using means to prevent bed-sores. All crumbs and wrinkles on the under-sheet must be avoided. The daily application of a little brandy, eau-de-Cologne, or spirits of wine, rubbed on with a piece of flannel, is very useful in hardening the skin, the back having first been thoroughly washed and dried. Violet powder, or powdered oxide of zinc, dusted both on the back and on the sheets after the daily washing, keeps the skin dry, and is another valuable precaution. But the best preventive measure of all is to move the patient on to a water-bed, the effect of which is to take off injurious pressure. Wherever water or air beds or pillows are used, the greatest care must be exercised to avoid pricking them with pins. Should sores unhappily form in spite of all these means, the use of spirits must at once be discontinued, and the greatest care exercised to remove all pressure from the affected part. A piece of thick felt, covered on one side with adhesive plaster, after the manner of a corn-plaster, may be cut so as to reach an inch beyond the reddened skin, and a hole made in the centre equal

in size to the sore place. The raw surface must be dressed with a little resin or zinc ointment spread on a piece of lint cut to the proper size ; this application requires renewal every night and morning. Where a portion of the skin has sloughed, or, in other words, mortified, a charcoal poultice must be applied until the slough separates, when the remaining ulcer must be dressed with one of the ointments already mentioned.

Baths should never be given except by order of the medical attendant, and the nurse must always test the temperature of the water by means of a bath thermometer before she allows the patient to enter. The proper temperature for a warm bath is from 92° to 98° , and for a tepid bath 85° to 92° . The body, as far as the neck, should be wholly under water, and the bath should be continued for fifteen or twenty minutes. On leaving the bath the skin should be rapidly dried, the night-dress, stockings, and slippers put on, and the patient allowed to go back to bed. To avoid being chilled on the way, the patient should have a flannel dressing-gown over the night-dress. On no account should a patient ever be left alone in a warm bath.

Hip-baths require the water to be of a somewhat higher temperature, 98° to 112° , that is, as hot as can be conveniently borne. The patient sits with the thighs bent (a blanket being thrown over the shoulders, and another over the knees and legs, where the bath is too small for these last to be covered with water), and remains in the bath not longer than a quarter of an hour.

Foot-baths should also be used with moderately hot

water, and should be large enough to hold both feet comfortably.

Hot-air baths are best given by means of a guarded lamp and body-cradle, which are made and sold for the purpose. The patient is stripped and laid upon a blanket in bed, the body-cradle, or large cage to keep up the bedclothes, is then placed on the bed, and a single large blanket thrown over it, so as to envelop the patient from the feet to the neck. The guarded lamp is then lighted and placed by the patient's side, under the cage. Presently the person will break into a profuse perspiration, which is generally the nurse's signal to remove the lamp. The medical attendant, however, will always give directions as to the length of time he wishes the bath to continue.

Where this special apparatus cannot be obtained, several long canes may be arranged over the bed to serve as a cage, and a spirit-lamp, protected by a large kitchen-grater, placed on a dinner-plate by the patient's side.

The nurse should never leave the patient while in the bath, lest the lamp should be upset, or the air become unbearably hot. In cases where perspiration does not speedily occur, the nurse is often directed to sponge the whole body with tepid water, and then to reapply the lamp without drying the surface.

Vapour baths may be given by wrapping up a heated brick in a piece of wet flannel, and placing it on an earthenware dish under the body-cradle. Another plan is to attach a long piece of india-rubber tubing to the spout of an iron kettle, kept boiling on the

fire ; the other end of the tube being so arranged as to convey the steam into the bed.

Both these baths may, in less severe cases, be given to the patient while seated on a cane-bottomed chair, with a large blanket so arranged as to surround the body from the neck downwards.

Cold baths are occasionally ordered in cases of unusually high fever ; these the doctor personally superintends.

The wet pack is a valuable means of producing free perspiration. The mattress should first of all be covered over with a piece of waterproof sheeting. Two strong binders should next be laid across the bed with their ends hanging over the bedside. A thick blanket is now arranged on the bed, and upon that a large linen sheet, which has been wrung out of cold water. The patient, stripped of all clothing, is placed upon the wet sheet, which is folded over so as to cover the body completely from the neck downwards, a slipper bed-pan having been previously passed to receive the urine. The blanket is then drawn over the sheet, completely overlapping it, and the binders are tied round the patient to make sure that the sheet and blanket are applied closely to the body. The patient should remain in the pack for three or four hours, and plentiful draughts of cold water may be given from time to time to hasten perspiration. On the removal of the pack, the body must be quickly dried with a soft towel, and a warm dry blanket wrapped round the body for some hours.

Tepid sponging gives great comfort and relief in very many cases of illness ; indeed it is sometimes ordered to be used as often as two or three times a day. It

is most effectually and easily accomplished in the following way:—A piece of mackintosh sheeting having been placed over the mattress or bedding, a warm blanket is spread out underneath the patient. The clothing is then removed from the whole body, and the entire surface quickly sponged over (passing the sponge always from above downwards) with tepid water, to which a little toilet vinegar or aromatic vinegar has been added. After the sponging the sides of the under-blanket should be quickly folded over the still wet skin, the bedclothes lightly replaced, and the patient allowed to remain undisturbed, except for the taking of nourishment, for an hour or more, when the night-dress can be put on and the bed arranged as usual.

Fainting.—The first thing to be done with fainting persons is to let them lie down, on a bed or couch if it be at hand, and, if not, on the floor itself. This is by far the most important part of the treatment, for by allowing more blood to pass up to the brain one may often prevent complete insensibility taking place, or, where loss of consciousness has already occurred, may materially hasten its return. The head should be on nearly as low a level as the rest of the body; except where the patient has to be laid on the floor no cushions or pillows should be used, and even then a folded shawl or apron, or a very thin pillow, is all that is desirable. After attending to the posture of the patient cold water may be sprinkled on the face, and a bottle of smelling salts may be held under the nose for a few seconds, but not longer. When the attack is passing off, a drink of water will be very grateful; it is of no use,

however, to follow the common custom of pouring a draught of cold water into the mouth while the patient remains still unconscious. No crowding should be allowed around a fainting person; the freer the access of fresh air, the sooner the attack will be over. If the patient is indoors, the window should be thrown open to admit the cool fresh air from without. Chafing the hands, stroking the hair, and all fussy attentions of that kind are foolish and useless.

When the attack is so prolonged as to cause alarm, a tea-spoonful or two of brandy, mixed with twice the quantity of cold water, may be given by means of a tea-spoon. A doctor should, in such a case, be sent for immediately.

Epileptic Fits are characterized by jerking movements of the limbs, twitching of the muscles of the face, frothing at the mouth, and loss of consciousness. Sometimes the face is pale, at other times flushed. Now and then the patient utters a cry, while in other cases not a sound is heard. The points that I have mentioned, however, will generally serve to distinguish between an epileptic fit and an attack of fainting. Patients suffering from these epileptic convulsions should be allowed to lie down at full length, just as in the case of persons fainting. They should have plenty of air, and all tight clothing about the throat and chest must be loosened. In severe cases, it is well to place a cork or other similar substance between the teeth to prevent the tongue from being bitten. These few directions really comprise all that is necessary. Sprinkling with cold water, shouting into the ears, rubbing the

hands are quite uncalled for and do no good. The movements of the body and limbs must never be restrained, except in the rare cases where the patients are in danger of hurting themselves.

Hysteria.—Fits of hysteria are sometimes so like true epileptic attacks, that it is difficult for an inexperienced person to distinguish them. Where there is any doubt, the safest rule is to deal with the case as if it were one of epilepsy, until the arrival of the medical man. Generally, however, hysterical attacks may be known by their not being attended with complete loss of consciousness. Hysterical persons seldom fall down, and if they do they take care to fall so as not to run any risk of being hurt. They do not foam at the mouth, or bite the tongue, and the movements of the limbs are very different as a rule from the convulsive twitchings of an epileptic. A great point to remember in dealing with fits of all kinds, and especially hysterical fits, is to avoid excitement and fuss, and to do and say as little as possible while the attack lasts. Anxious and inexperienced friends are always desirous that active measures of some kind should be taken. A good nurse will endeavour to calm their fears, assuring them that quietness is necessary for the patient's speedy recovery. Fussy attentions on the part of the bystanders always serve to prolong an attack of hysteria. It is sometimes recommended to throw cold water over persons in hysterics; this should never be done however except by special direction of the medical attendant.

Apoplexy, &c.—Unconsciousness may occur from many other causes than those just alluded to, as for instance from apoplexy. In these cases a medical

man should be summoned as soon as possible, and, until his arrival, the patient should be kept lying down, with free access of air ; all tight clothing being loosened.

Bleeding from the Nose.—Persons who bleed from the nose usually hold their heads over a basin, which is the most unsuitable position they could adopt. The head should be held back, and some cotton wool, a sponge, or a handkerchief pressed to the nostrils. The simple plan of holding the patient's arms straight up by the side of the head for a few minutes will often be sufficient to arrest the bleeding. Where the bleeding does not speedily stop, a doctor should be sent for, as it may be necessary to plug the nostrils.

Bleeding from an Enlarged Vein.—An enlarged condition of the veins of the leg is a very common complaint, and occasionally one of the swollen veins bursts and dark blood spurts out in an alarming manner. When such an occurrence takes place, the bleeding must be stopped by pressure. If nothing be just at hand to apply to the wound, the finger must be held over it until a small pad of lint or linen rag is got ready. This little pad is then to be pressed upon the bleeding spot, a halfpenny or some similar hard, smooth substance having been wrapped in the pad to make it firmer ; another pad, rather larger than the first, is to be placed over this, and the whole kept in position by means of a handkerchief, or bandage, passed two or three times round the leg. The patient must be kept lying down, and the leg raised upon pillows.

Attendance upon delirious cases requires the greatest patience and tact. A nurse should humour delirious

patients as much as possible, listening quietly to what is said, and above all things avoiding contradiction. It is scarcely necessary to say that everything should be removed which could by any chance be used for the purpose of injuring themselves or others ; fire-irons, knives, razors, forks, and scissors may be mentioned as instances. These patients often show a strange tendency to jump out of the window ; for which reason little blocks of wood, or stays, should be so fastened that the sash can only be raised to the extent of a few inches. This precaution would save many a life ; for even though a patient may never be left alone, he may reach the window, throw it open, and jump before the nurse can interfere.

It is sometimes necessary to place delirious persons in a strait-waistcoat. Mr. Berkeley Hill gives a useful hint as to the best way of getting it put on. The sleeves are to be turned inside out, one of the attendants slips his or her arms through them, then takes hold of both the patient's hands, as if to lift him up or shake hands with him, while a second attendant, standing behind the patient, takes the opportunity of drawing the sleeves from the arms of the first attendant on to those of the patient. This done, the rest is comparatively easy. The jacket, open at the back, is fastened there by tapes ; the sleeves, always made long enough to pass beyond the fingers, are drawn tight by tapes passed through the gathers ; and the belt for the body after being passed round the patient's waist is fastened by each of its ends to the bars of the bedstead. It is often a matter of difficulty to get an insensible or delirious patient to take food. There are several ways of overcoming

this. One plan, mentioned to me some years ago by Mr. Mould of the Cheadle asylum, is this :—An attendant, standing behind the patient, passes the forefinger of each hand cautiously into the mouth at its corners, holding the cheeks well away from the teeth, while another attendant feeds the patient with a spoon. If the teeth are not absolutely closed along their whole extent, the liquid will fall to the back of the throat, and the patient will be obliged to swallow it in order to breathe. In cases where this simple expedient does not answer, it may be necessary to feed through the nostrils, or by means of the stomach-tube. These measures, however, require the personal supervision of a medical man.

Laying out the Dead.—When a patient has been pronounced by a medical man to be dead, and the friends have left the room, the nurse must lay the arms and legs straight, close the eyelids, using coins for this purpose if necessary, tie the feet together by a tape, and support the lower jaw by a handkerchief tied over the head. After the lapse of two or three hours, the body must be stripped, washed, clothed in a clean night-dress and stockings, and covered over with a sheet, the little points mentioned above being again attended to.

CHAPTER VII.

Clinical Thermometer.—A nurse is often desired to take a patient's temperature at certain fixed hours. This should always be done by means of a so-called self-registering thermometer. In grown-up persons the bulb of the thermometer is to be placed in the arm-pit, so that it is tightly held by the muscular folds; the elbow, well bent, must be drawn across the patient's chest, and the thermometer kept in position for ten minutes. In children greater accuracy is attained by passing the bulb of the instrument, previously oiled, into the bowel to the extent of an inch and a half; it is to be held there by the nurse's hand for five minutes. While this is being done the child should lie on its side in the bed, or, if not too ill, it may lie on its face across the nurse's lap. On each thermometer is a scale of degrees of temperature, and a little arrow marks the average temperature of health. Before placing the thermometer in its position, it must always be seen that the little separated column of mercury, which constitutes the index, is shaken gently down so as to lie entirely below this arrow. The reading of the scale is not a difficult thing to master, though it is one of those matters that can only be taught with any satisfaction at the bedside. A memorandum of the result should be written down there and then, and shown to the attendant at his next visit.

Observation of Pulse.—The only observation a nurse is called upon to make respecting the pulse is as to

its rapidity. Now in counting the beats of the pulse, two points require to be specially borne in mind. First, that one or two fingers and not the thumb, must be used ; and secondly, that the minute hand of the watch should make at least one complete circle while the pulse is being counted, or, in other words, that it should never be counted for less than a whole minute. If any difficulty should be experienced in finding the pulse at the wrist, which is the one usually selected as a matter of convenience, the best plan is to place the flat hand over the patient's left breast, and count the beats of the heart itself.

Expectoration.—A patient must never be permitted to use the chamber-pot as a spittoon ; the spittoon is quite a separate article and should be always kept by the side of a coughing patient, so that it can be reached in a second. The best form is a half-pint pot, with handle and loose funnel-shaped lid. It is easy for the patient to use, and the medical attendant can by lifting the lid see without difficulty both the quantity and quality of the secretion ; it should invariably be emptied and washed both outside and inside twice a day, and oftener if the expectoration be offensive or abundant. In cases where it is requisite to empty the spittoon before the doctor's visit, the nurse should be able to report as to the nature and amount of its contents.

Urine.—A nurse is frequently called upon to measure the quantity of urine passed in the twenty-four hours ; this is best done by collecting it for twelve hours, say from eight in the morning till eight in the evening, and measuring in a large graduated measure - glass or bleeding - basin, and

noting down the quantity in ounces. The urine should be placed in another room for measurement, and on no account suffered to stand in the same room with the patient. To insure all possible accuracy it is desirable to ask the patient to empty the bladder immediately before every evacuation of the bowels, and into a separate vessel.

When a specimen of the urine is to be reserved for the doctor's inspection, the nurse should be supplied with tall narrow glasses, known as urine-glasses. One of these should be filled each time the urine is measured, *i.e.*, night and morning, and should be covered with a loose paper cap to keep out the dust. All specimens of urine, as well as the larger accumulations, should be kept in another and well-ventilated apartment, and never in an inhabited room.

Evacuations from the Bowels.—In many cases it is imperative that the doctor himself should see what passes from the bowels; the stools should then be covered over with an earthenware lid, and kept in an outbuilding. Even when this is not considered necessary, the nurse should always be able to report not only the number but the character of the evacuations, *i.e.*, as to colour, consistency, odour, and quantity.

Skin, &c.—Besides these points, a nurse should be able to tell the medical attendant the condition of the skin, whether it has been dry or perspiring, hot or cool: the occurrence of any alteration in manner or intelligence, such as delirium or stupidity: any peculiarities of breathing: the state of the appetite: the presence of eruptions or abscesses: and any other matters that may possibly not come immediately under his observation.

CHAPTER VIII.

Bandaging.—The art of bandaging can only be taught properly at the bedside ; the following remarks are intended simply to refresh the memory.

The material in general use for bandages is unbleached calico, six, seven, or eight yards in length, according to circumstances. The selvedge having been cut off, strips of a width varying from two and a half or three inches, which is the most useful size, up to six inches, which is only occasionally of service, are to be torn off, and tightly and evenly rolled, either by hand or one of the little machines contrived for the purpose. Each bandage is then pinned, or tied with thread, to keep it from unrolling. Flannel bandages are also frequently required.

In applying a bandage, the roll is to be held in one hand, usually the right, while the other hand is employed in pressing the outer side of the loosened end against some point on the part from which the bandaging is to begin. Two or three rather tight turns are then passed, one over the other, to keep the end from slipping. The roll must be held, not in the palm of the hand, but between the thumb and fingers. In changing the roll from one hand to the other, only just so much of the bandage is to be unrolled as will allow it to change hands. The greatest care is required to insure a perfectly even application, and on the other hand, to avoid bandaging too tightly, the

effect of which might be to cause pain, swelling, and even mortification of the parts below.

Spiral Bandage.—The simplest form of application is the spiral bandage, such as is used, for instance, in bandaging the thigh, in which each turn is made to overlap the one before it to one-third or one-quarter of its breadth.

Reversed Bandage.—In parts less even than the thigh, as in the leg for example, the simple turns of a spiral bandage will not lie flat. To accommodate it, therefore, to the irregularities in the shape of the limb, it is necessary, at each turn, to turn the bandage over upon itself, or in other words to reverse it. Practice alone can enable a nurse to do this neatly; at the same time it will help her, if she bears in mind the following points:—(1) The turn-over of the bandage should, if possible, be on the outer side of the limb; (2) Each angle should be exactly above the rest, so that when the limb is bandaged, all the angles may be in a straight line; (3) In making the turn the roll must be held a little above the level of the limb; (4) The turn is to be made while the bandage is held loosely, and is to be tightened up afterwards; (5) No more of the bandage than is really necessary must be unrolled at a time.

Spica Bandage.—To retain poultices or other applications on the groin, the following arrangement is the best. A bandage, three inches wide and seven yards long, is first carried twice round the belly, just below the projecting hips, the application being commenced on the front of the sound side and carried from thence backwards. After having made the second turn, the bandage is brought down over the affected groin,

passed round the thigh, brought again over the groin, and across to the starting-point on the sound side. A third turn is now taken round the body, then across the groin and round the thigh as before, passing across to make a fourth turn. This is again repeated, and the process completed by one or two final turns below the hips.

Some authorities recommend the spica bandage to be commenced by two turns round the thigh, from within outwards, instead of round the pelvis.

Figure of 8 Bandage.—For exerting pressure in the arm-pit, and for bandaging the elbow, shoulder, knee, and ankle, the figure of 8 bandage is the most useful. Its mode of application will be explained in the following paragraphs.

Leg Bandage.—A roller, six yards long and three inches wide, is to be held in the right hand for the right leg, and in the left hand for the left. The leg is supported on a chair or stool, while the nurse stands in front. One or two turns are carried round the foot at the root of the toes, and the bandage, the end of which has thus been secured, is continued towards the instep, reversed at each turn. When the instep is covered the bandage is carried up in front of the ankle, behind the lower part of the leg, down again in front of the ankle, so to pass under the foot, completing what is known as the figure of 8. This figure is now to be repeated, and the bandage continued up the leg, reversed at each turn, and finished off by two or three unfolded turns below the knee.

Knee Bandage.—A roll, two and a half inches wide and four yards long, is held in the hand corresponding

to the affected side, and its end secured by making two simple turns round the thigh, just above the knee. The bandage is then crossed either in front of, or behind the knee, according to the part at which pressure is wanted, passed round the leg, and up again to the thigh, crossing the knee as before. This figure of 8 is repeated two or three times, and the application completed by a simple turn round the thigh.

Shoulder Bandage.—This is used to keep dressings in the arm-pit, or on the shoulder, and sometimes forms part of the treatment of fracture of the collar-bone. A bandage, seven or eight yards long and two and a half inches wide, is passed twice round the upper part of the arm on the affected side, commencing at the outer side and being carried thence inwards over the front of the arm. After being secured by these two turns, the bandage is carried up behind and over the shoulder, across the chest to the opposite arm-pit, thence across the back, and over the affected shoulder to where it started. This figure of 8 is to be repeated two or three times, and the end finally passed once or twice round the arm as at first.

Breast Bandage.—When dressings are ordered to be kept on the breast by means of a bandage, a double-headed roller, eight or ten yards long and three and a half inches wide, will be found the best for the purpose. As the name indicates, this bandage is prepared by rolling it up from each end as far as its centre. In applying it, the centre of the bandage is placed under the arm-pit on the sound side, one head is then carried slant-wise in front of the chest, and the other behind. Both are made to pass over the

dressings, and, in being carried again round the body, are arranged so as to enfold the breast on the sound side, and a second time to cover the dressings. The application is completed by carrying one head of the roller in even turns round the chest, while the other is made to pass each time over the shoulder on the sound side, and so cross the chest slant-wise.

To bandage the breast with an ordinary single-headed roll, two plain turns are to be passed round below the breast. The bandage is then carried across the dressings, up to, and over the opposite shoulder, whence it comes down across the back, and again over the dressings, making a plain turn round the chest. The next turn goes over the shoulder, to be followed by another round the chest, and so on till the bandage is fully applied.

T-Bandage.—To maintain apparatus or dressings applied to the vulva or anus, a T-bandage is required. It consists of two or three turns of bandage passed round the pelvis; to the middle of this belt behind, half a yard of bandage, two inches in breadth, is stitched. This is brought forward between the thighs to meet the belt again in front, the strip being torn down its middle for a few inches, so that it can be tied to the belt by passing one tail behind and the other in front of it.

Bandage for the Head.—Two turns are made round the forehead and back of the head, and the bandage is then pinned over one of the ears. It is then turned upon itself over the pin and carried under the lower jaw and over the top of the head once or twice, when another pin is used, and the application completed by a few turns like the first.

Other head-bandages are occasionally required; the one here described is the most generally useful.

Bandage for Projection of the Bowel at an Infant's Navel.—The bowel having been pushed gently back, a piece of cork is placed upon a little cotton wool, and pressed into the opening through which the bowel projected, being secured in position by a strap or two of sticking-plaster. A compress of lint is then laid over the end of the cork, and kept in its place by applying over it the middle of a broad linen belt, tapering at each end, which is then carried quite round the body and tied in front.

Many-tailed Bandage.—This is made by taking a piece of unbleached calico of the length of the limb for which it is required, and of sufficient width to go once and a half round it. This is then to be torn from each side into strips two inches in width, the tearing to reach to within two inches of the middle line. In applying the strips over the limb, the bottom ones are to be folded first.

It may also be made by stitching a number of two-inch strips of bandage crosswise on to a piece of four-inch bandage of the required length; each strip slightly overlapping the next.

Bandage for the Hand and Wrist.—Two simple turns are made round the wrist to secure the end of the bandage; the roll is then carried over the back of the hand to the space between the thumb and first finger, straight across the palm, and down the back of the hand again to the wrist, where another simple turn is made and then the figure of 8 over the hand repeated once or twice. This having been done, the

remaining turns round the fore-arm may be either simple or reversed, according to circumstances.

Sling for the Hand or Wrist.—A large handkerchief is to be folded corner-wise into the form of a broad cravat. The hand being turned with the palm towards the chest, the hand or wrist is to be supported in the handkerchief on a level rather higher than the elbow, and the ends tied round the neck, the front part of the handkerchief, or that which passes over the back of the hand, being carried over the shoulder on the sound side.

Sling for the Fore-arm.—The handkerchief in this case is to be more broadly folded, so as to support the arm from wrist to elbow, and the front part of the handkerchief is to be carried over the shoulder on the affected side, to meet the other end which is passed over the opposite shoulder. The ends are then to be tied behind the neck.

Perineal Band.—For putting up fractures of the thigh the surgeon often requires a perineal band to be made ready. A narrow bag of unbleached calico, long enough to reach from the middle of the bend of the thigh in front to a point equally high up behind, is to be stuffed evenly with cotton wool. To each end of this a yard of broad tape is to be securely stitched.

Pads for Splints are to be made a trifle broader and longer than the splint. Soft cloth is the best covering, and the stuffing may be either cotton wool or tow. For large pads it is necessary to stitch them across, here and there, through their whole thickness.

After being used, the stuffing is to be thrown away and the covers washed.

Chaff Pillows are made of soft cotton or old linen,

of sizes from six inches square upwards, and loosely stuffed with dry chaff.

Sand-bags are made of various sizes, both as to length and breadth. The best covering is chamois-leather, which is well stitched into a bag, and three parts filled with fine, well-dried sea-sand. If they are too full they cannot be moulded to the shape of the limb they are intended to support.

Plaster of Paris Bandages are quickly prepared by taking two basins, one of which contains clean water, and the other water to which modellers' powder is added until the mixture is of the thickness of cream. A bandage is unrolled under water in the first basin, and passed over into the second, where it is rolled up again, saturated with the moistened plaster. A little of the mixture is to be left in the basin, for the surgeon to smear over the bandaged limb, when he has completed the application.

This bandage may be removed by simply unrolling it, whereas starch and gum bandages require cutting up, which is frequently a very difficult task.

Strapping.—In preparing strips of adhesive plaster for the surgeon, the nurse must always remember, first, to wipe the dust from the plaster with a dry cloth, and then to cut the strips quite evenly, and the long way of the sheet. Plaster cut crosswise does not hold well. The strips may be warmed either by holding their non-sticky side against a hot-water tin, or, still better, by passing them quickly from end to end, over the flame of a spirit-lamp.

While a wound is being strapped, its edges should be pressed together.

Removal of Dressings.—The removal of strips of

plaster from a wound is best accomplished by separating first one end of the strip and then the other, leaving the central part, which is lying across the wound, to be lifted off last. This prevents the wound from being torn open.

After removing plasters, the soiled skin can be easily cleansed by rubbing it with warm olive oil and then washing with soap and water.

Cotton wool, or fine tow, should always be used instead of sponges, for the washing of wounds and the skin in their neighbourhood. These things can be thrown into the fire after being once used, while sponges are too expensive to be dealt with in that way, and may carry infection to other patients.

After every dressing of a wound, a nurse should wash her hands thoroughly with soap and cold water, always using a good nail-brush.

Operation-table.—To prepare a table for an operation, it must be covered with a folded blanket, and if the operation is to be upon the head or face, a piece of red flannel should be laid over the pillows. Mackintosh sheeting must be placed upon the table, either over the whole, or over that part most likely to be soiled. The floor is to be protected by a thick sprinkling of saw-dust or a saw-dust tray.

The operation-room should always be well warmed beforehand.

Sponges used for operations should be kept for that purpose only, and when not in use should stand in a basin of clean water. It is impossible to wash sponges properly while an operation is going on, and for that reason a large number should always be got ready beforehand. When they are

handed to the surgeon they should be thoroughly squeezed until not another drop can be pressed out. Sometimes the operator will wish them to be squeezed out of warm water, and sometimes out of cold.

New sponges require cleansing from sand and other impurities before being used. This is effected by allowing them to stand in one basin of cold water after another for several days, until no sand can be detected at the bottom of the basin.

Other requisites for an Operation.—It is a nurse's duty to see that there are washhand-basins, jugs of hot and cold water, soap, towels, pins, scissors, a tray for the instruments, several bleeding-basins to receive soiled sponges, &c., strips of adhesive plaster of various breadths, strips of wet lint and dry lint, cotton wool, bandages, ligatures, suture-needles, oiled silk, a feeding cup, a supply of brandy, and an electric battery, if there is one at hand.

If chloroform or ether is to be given, the patient must have a very light and early breakfast; no food being allowed within four hours of the operation.

The Bed after Operation.—The bed to which the patient is to be carried must be prepared before the operation commences. A mackintosh and draw-sheet, and a cradle to keep the clothes off, large or small, according to the nature of the operation, will be usually necessary.

For at least some hours after an operation, a patient should on no account be allowed to sit up, or even raise the head from the pillow.

Precautions against Venereal Infection.—When a nurse has had occasion to touch any wound or sore place, she must carefully avoid touching her eyes or nose,

or indeed any portion either of her own body or that of any other person, until she has washed her hands thoroughly. The neglect of this precaution has frequently resulted in the infection of the nurse's system with disease. When there are sores on the lips of the external genital organs of the female, these precautions must be specially borne in mind ; indeed, in such cases, the nurse owes it to herself to touch the patient as little as possible.

CHAPTER IX.

Rules to be observed during and after attendance upon Communicable or Infectious Cases.—The medical practitioner in attendance will give special directions, with reference to the use of disinfectants, and other precautionary measures, according to the requirements of the case. In the meantime, a nurse will do well to follow the few simple rules here laid down. It is particularly desirable that a monthly nurse should know something of this subject; lying-in patients being even more liable to be attacked with infectious fevers than other people, she can never know how soon it may be her duty to deal with such cases.

1. First of all, then, whenever an infectious case occurs, all communication with other people must be stopped; the patient must be isolated. No person must be admitted to the sick-room, except the doctor and those engaged in nursing the patient; and the nurses themselves must avoid mixing with the other members of the household as far as possible.

2. All needless drapery should at once be taken from the room, spread out for some hours in the open air, and then taken to some other part of the house. Most of the carpets and curtains of a room can be dealt with in this way.

3. The rules already given as to ventilation must be rigorously carried out; fresh air from outside must be admitted as freely as possible, the doors

being kept strictly closed. Whenever the season will permit, a fire should be constantly burning in the grate; it may be large or small, according to the state of the weather and the heat of the atmosphere.

4. All soiled bed-clothing and personal linen, *before being carried from the room*, must be either dipped into boiling water or set to soak in water containing an ounce, to each gallon of water, of the common clear solution of the chloride of lime* or the chloride of soda.† The articles should afterwards be well boiled in the washing, and then freely exposed to the air.

5. The bed-pan, chamber utensil, and spittoon, all the vessels, in short, which are to receive the patient's discharges, whether from the bladder and bowels, or, as in the case of a spittoon, from the mouth and air-passages, should be kept constantly charged with some disinfectant, chloride of lime being the best for this purpose. Immediately after use, more of the disinfectant is to be added, and the vessels are then to be carried at once out of the room, emptied, rinsed, and brought back to be again charged with the chloride.

6. Special care should be exercised as to the washing of all basins, cups, plates, glasses, &c., a supply of which should be kept in the room for the

* In case of the lime solution being used, "the clothes should afterwards be wrung out from successive waters, in order to get rid of the chloride of calcium, which has the property of keeping the linen damp." (Report by Dr. B. F. Craig "On disinfectants" in the "Report on epidemic cholera in the army of the United States during the year 1866." Washington, 1867, pp. 63—65.)

† Water containing Condry's fluid is often used for disinfecting linen; though useful as a disinfectant for other purposes, for this purpose it is useless.—Letheby.

sole use of the patient. The nurse must wash her own hands, too, very frequently.

7. Pieces of rag should be used instead of pocket-handkerchiefs, and burnt immediately after use. All poultice-cloths and soiled dressings should be at once put in the fire and not allowed to go out of the room.

8. In scarlet-fever cases, when the skin begins to peel off, oil or some form of ointment, or pomade, prescribed by the attendant, must be freely applied to the surface of the patient's body, to prevent the scales of dry skin from floating in the air, and spreading the infection.

The disinfection of the room itself cannot be proceeded with so long as it is inhabited, for the only means which are sufficient for this purpose would make it impossible to breathe in the room.

When, however, a patient has left the chamber, all the articles contained in the room must be spread out, the doors, chimney, and windows carefully closed, and about two ounces of sulphur burnt in an earthenware dish, containing some live coals, and supported on a pair of tongs over a pail of water placed in the middle of the floor. The person who sets the sulphur burning must instantly leave the room, for fear of being suffocated. After having been kept closed for five or six hours, the room may be opened, and abundance of fresh air let into it by opening the windows and the chimney.

All the bedding, bed-clothes, and bed-room drapery should afterwards be sent away to be stoved. In most of the large towns, the health authorities provide a proper stove and employ persons to remove these

articles and to see that the stoving is properly carried out. Where these arrangements do not exist, the contents of the infected room must be taken out of doors, and exposed to the action of the air and the sun.

After an attendance upon an infectious case, it is a nurse's duty to see that all her own clothing is thoroughly disinfected; such of it as will bear washing must be plunged into boiling water, and afterwards well boiled in the washing, while the rest must either be stoved or hung up in a closed room while sulphur is burnt in the manner above described. She must also take means to disinfect her skin. This may be done by sponging from head to foot in warm water, to which solution of chloride of soda has been added in the proportion of an ounce of the solution to each gallon of water. She should then wash herself thoroughly with soap and water. Special care should be taken to cleanse the nails, by dipping a good nail-brush in the water used for the sponging, and brushing well in between and all round the nails. If these directions are faithfully carried out, a nurse need not be kept from her work longer than a week.

Note.—The following are some of the best authorities on the subject of disinfection:—

“Memorandum on disinfection,” by John Simon, F.R.S., in the ninth “Report of the Medical Officer of the Privy Council” for 1866, p. 236.

LETHEBY (H.), “On the right use of disinfectants.” Lond. 1874.

CRAIG (B. F.), *loc. cit.*

BAXTER'S “Report on an experimental study of certain disinfectants,” in No. VI. of the New Series of “Reports of the Medical Officer of the Privy Council and Local Government Board.” Lond. 1875, p. 216.

PART II.

NURSING DURING PREGNANCY, LABOUR, AND THE PUERPERAL STATE.

CHAPTER I.

NURSING DURING PREGNANCY.

Signs of Pregnancy.—The first thing that leads a woman to suspect that she is pregnant, is the passing by of her usual monthly period without any appearance of the customary flow. This is called the cessation of the *menses*, or monthlies, and almost always occurs when pregnancy has commenced. I say, *almost always*, because cases now and then occur, where, in spite of pregnancy, the monthly flow takes place for the first few months just as usual; in certain still rarer instances it has been known to appear regularly throughout the pregnancy. On the other hand, the monthly flow may cease from many other causes besides the occurrence of pregnancy, for example: from an attack of severe illness, from general weakness, from sudden grief or other strong mental excitement. So that although this is an almost constant sign of pregnancy, it cannot be said to be at all a certain sign, taken by itself; for pregnancy may occur without it, and still more frequently menstruation may suddenly cease without pregnancy having taken place.

The next symptom of pregnancy to attract attention is a feeling of sickness, often leading to actual vomiting. This symptom generally commences about the fourth or fifth week, and lasts to the middle of pregnancy; it is often most distressing in the early morning, and from this circumstance is commonly known as morning sickness. This, again, is not an invariable symptom; many women pass through the whole term of their pregnancy without it.

Shortly after pregnancy has commenced, a sensation of weight and fulness is felt in the breasts. A little later these organs enlarge, and the nipples become more prominent; the skin, too, just round the nipples becomes darker in colour, an alteration most marked in women of fair skin and light complexion. Of course these changes are most noticeable in women who are pregnant for the first time; for when they have once occurred, the breasts never quite resume their original appearance, and the changes which are brought about by other pregnancies are less observable. But the breasts may increase in size, and many even contain milk, without pregnancy having occurred. Certain diseases of the womb, for example, occasionally excite the breasts very much in the same way as pregnancy, so that this third set of symptoms, like the other two, cannot be alone relied upon as evidence of pregnancy.

About the end of the third month the lower part of the belly, or abdomen, begins to grow a little fuller, and continues to enlarge from that time forwards; by the end of the seventh month the hollow of the navel has generally disappeared, and the little fold has become level with the surrounding skin. I need scarcely say, however, that many different kinds —

of tumours may give rise to a very similar enlargement of the abdomen, and from increasing distension of the abdominal walls may also flatten out the navel. Not one of the four symptoms that I have described is positive proof of pregnancy. There are not many positive proofs to be obtained, and they come within the sphere of the medical man, not of the nurse. But although the signs that I have mentioned are not sufficient, when taken one by one, to warrant a positive opinion, yet when two or more are present there is good ground for a very strong suspicion of pregnancy. Whenever it is important that the question should be placed beyond doubt the nurse should direct the patient to consult her doctor.

Mode of Calculating probable Date of Confinement.—The usual method of reckoning the probable date of confinement is to learn on what day the last monthly flow stopped, thence to count three months backwards (or nine months forwards) and add seven days. This is, in practice, the best plan that has been suggested, and will generally give a date within a very few days of the actual confinement—frequently the very day. Let me give an instance to show how the calculation is made:—A woman, we will say, was last unwell on the 10th of March; three months back from the 10th of March gives the 10th of December, add seven days, and you will get the 17th of December, which is the probable date of her confinement. If it is not the actual day, labour will in all probability take place within three or four days before it or after it.

CHAPTER II.

Management of Pregnancy.—It must be borne in mind that pregnancy is a natural condition, not a condition of disease. Its proper treatment consists in paying increased attention to the laws of health. A pregnant woman should avoid late hours; she requires a full allowance of rest. She should take plenty of exercise in the open air whenever the state of the weather permits; and, while avoiding all unnecessary strain, such as the lifting of heavy weights, or reaching things from a height, she may engage in the lighter duties of her house, not only without risk, but with actual gain of health and strength. Her food should be taken with the utmost regularity, and should be plain and simple in its nature. Good new milk should form a considerable part of her every-day diet. Beyond a glass of good beer or porter at dinner, and perhaps again at supper, there is no necessity for her to take stimulants except under special medical direction. Over and over again have young and anxious husbands made the grievous mistake of urging upon the pregnant wife the frequent glass of sherry and the nightcap of hot spirits and water, under the impression that stimulants were helpful and desirable. At first these unaccustomed indulgences are distasteful, and are taken simply in deference to the husband's wish; presently the dis-

like passes away, and they become a necessity—with what sad results in the long run, let many a sorrowing family tell. A pregnant woman is both happier and healthier without either wine or spirits, except when a glass of claret or sherry is taken at dinner, instead of beer.

As the abdomen enlarges it is of the utmost importance that the clothing should not be tight. Stays should be widened or loosened, and no tight bands should be worn round the waist. A foolish regard for appearances has led many a woman into most lamentable mistakes on this point.

During pregnancy the mind should be attended to as well as the body. All unnatural excitement is to be carefully guarded against, and distressing sights are to be specially shunned.

Great care must be exercised to insure a daily action of the bowels. An excellent plan is to set apart a certain time of the day for attending to this function, whether there be an urgent desire for relief or not. Perhaps the best hour for most people to fix upon is immediately after leaving the breakfast-table. By following this simple rule the necessity for opening medicine will seldom arise.

When medicine is required, the kind selected should be as simple as possible, for example—a compound rhubarb pill, or a little castor oil.* When costiveness is associated with piles, the aperient chosen should be a tea-spoonful of sulphur in a little milk

* Magnesia, being considered a safe and light aperient, is rather popular as a domestic medicine. It should be known that it is a very unsafe remedy to take habitually, owing to its tendency to form masses in the bowel.

every morning, and the patient should be instructed to make her daily visit to the water-closet, just before retiring to bed at night; in that way she will suffer less from the aching pain that, to a greater or less extent, follows every action of the bowels. Injecting half a pint of cold water into the bowel immediately before the bowels are moved, often does great good. In severe cases the patient must keep her bed for a day or two, and the piles, from time to time, must be fomented with warm water; where these measures are required, however, the medical attendant should be consulted.

Hardening the Nipples.—The nipples, especially in first pregnancies, should be hardened by bathing them daily during the last month or two with a mixture of equal parts of rectified spirits of wine and water, or eau-de-Cologne and water; this will render them less liable to crack and become sore on the application of the child. Cracked nipples are fruitful sources of breast-abscess.

Supporting the Breasts.—Should the breasts enlarge and become painful they should be supported, as in a sling, by a broad handkerchief passing under the arm of the affected side and over the opposite shoulder.

Varicose Veins.—Sometimes the veins of the legs become swollen and uncomfortable. Garters must in such cases be at once left off, and the legs allowed to rest upon the couch as much as possible.

Pendulous Belly.—In women who have borne several children the abdominal walls hang loosely, and the pregnant womb, having too little support, falls forward, producing the condition known as pendulous belly. A white flannel binder or one of

the abdominal supporters sold for the purpose should, in these cases, be recommended to be worn constantly, except when the patient is in bed.

Obstinate Vomiting.—Now and then the sickness and vomiting, instead of occurring occasionally or in the morning only, become almost incessant, and threaten to cause serious loss of strength. This state of things should be at once made known to the medical attendant.

Difficulty in Passing Urine.—Whenever there is difficulty in passing water during the early months a medical man should be consulted, for it may be due to a displacement of the womb, and, if so, requires immediate attention.

Troublesome heartburn, diarrhoea, palpitation, itching or swelling of the external parts, swelling of the face or ankles, all require medical treatment and the personal care of the medical attendant.

CHAPTER III.

Hæmorrhage, or a Discharge of Blood, during Pregnancy may result from various causes. For instance, it may take place owing to the bursting of a vein at the external genitals. This occurs when the veins of that neighbourhood have become enlarged and varicose owing to the pregnancy. When one of these enlarged veins gives way the quantity of blood poured out is often very considerable, and the medical attendant should be summoned without delay. In the meantime the patient must be placed flat on her back upon a couch or bed, with the head low, and a pillow or two underneath the hips. The room must be kept cool and quiet, and the friends of the patient asked to withdraw. The parts should then be sponged with cold water, in order that the exact spot may be found from which the bleeding comes. A pad of lint or cotton wool should then be pressed firmly upon it, and held in that position by means of a napkin, that the hæmorrhage may be held in check until the doctor's arrival. If that event is delayed, the napkin may be secured by a T-bandage.

The hæmorrhage may also be due to the presence of disease, such, for instance, as tumour or cancer, co-existing with pregnancy. Now and then, as I have said elsewhere, the usual monthly courses may continue to appear for the first two or three months

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to take a dry napkin or two, and, having folded them in the form of a pad, to press them forcibly against the external genitals and hold them there.

These alarming hæmorrhages are often brought about by accidents, such as blows or falls, or by the lifting of heavy weights. When flooding first makes its appearance at the seventh month or later, and there has been no such accident to account for it, the probability is that the case is one of placenta prævia. This is the name given to cases where the after-birth is in an unusual position—namely, over the mouth of the womb, constituting a very dangerous complication. The temporary treatment of flooding due to this condition must be the same as that already described when speaking of threatened miscarriage.

CHAPTER IV.

Precautions after previous Miscarriage.—When previous pregnancies have been cut short by miscarriage, it is very necessary that the greatest precautions should be observed, to avoid a repetition of such an accident. Now, we know from experience, that miscarriages are most apt to take place at those periods which, if there were no pregnancy, would be the proper time for the appearance of the monthly courses. As each of these occasions comes round then, the patient should be, if possible, confined to bed, or at any rate to her couch, until the time has passed over during which the monthly flow is accustomed, in her case, to continue. In some women this period is three days, in others nearly a week. If this simple rule were attended to, many a miscarriage would be prevented, many a life would be preserved. A woman known to be liable to miscarriages should, moreover, be specially careful to avoid all the most common causes of abortion. She should abstain from exciting entertainments, violent exercise, fatiguing or rough journeys, strong purgative medicines, and exposure to cold.

The after-treatment of patients who have miscarried is a most important matter, and one which receives far too little attention. It is no uncommon thing among patients of the labouring and middle classes

for a woman to go about her ordinary duties as early as the second or third day after abortion ; and some do not even rest for more than a few hours. Now this neglect of proper precaution may not result in any immediate ill effects, but it frequently lays the foundation of chronic disease. Whenever nurses have an opportunity, I hope they will tell their patients what there is in store for them if they try to get about and do their housework too soon after such an occurrence. I shall naturally be asked—what length of time would you consider proper ? I answer, that no absolute rule can be laid down. It depends so entirely on circumstances that vary in different cases ; for example, upon the age of the foetus, the amount of hæmorrhage, the strength of the woman's constitution, and the state of her health at the time. Thus, in a case of abortion before quickening, for instance, where the health has not suffered, and the loss has been small, four to six days' absolute rest in bed, followed, during the next ten to fourteen days, by the greatest care and prudence, will, in the absence of special directions from the medical attendant, be generally found sufficient. If the health is unaffected, I know that it becomes very irksome to lie in bed for the time I have here indicated. Nevertheless this rule cannot be neglected without running grave risk.

Such a period, indeed, will be much too short if the circumstances are less favourable, or the pregnancy is further advanced. An abortion or miscarriage frequently reduces a patient, through severe or long-continued flooding, to a condition of weakness quite equal to that following an ordinary confinement. Common sense tells us, therefore, that, in such cases,

the same care ought to be exercised as after a labour at full term.

When a miscarriage is apparently threatening, the patient must on no account leave her bed so long as there is any discharge of blood, for while that continues the danger is not over.

The persistence of the flow of blood, after a foetus has actually come away, generally signifies that the after-birth, or some portion of the membranes, remains behind. In this case, therefore, it is also equally clear that a patient ought on no account to leave her bed or couch, and still less resume her household duties, until all signs of hæmorrhage have ceased.

CHAPTER V.

NURSING DURING LABOUR.

Signs of Approaching Labour.—Towards the latter part of the ninth month, certain changes take place which give warning that labour is not far off. One of the earliest of these is sinking of the abdominal swelling. The upper end of the womb, which, at the beginning of the ninth month, reaches as high as the pit of the stomach, falls a little below that point during the last week or two. Great relief to the breathing follows this alteration, as the pressure upon the organs of the chest is thereby greatly lessened. On the other hand, owing to the descent of the lower portion of the womb into the pelvis, certain new inconveniences arise from pressure upon the various important parts contained in the pelvis. Walking becomes more difficult. The veins of the external genitals frequently become enlarged. There is generally a frequent desire to relieve the bladder, owing to pressure upon the neck of that organ; and, from a similar pressure behind, the lower bowel is often interfered with, as is shown by an acute attack of piles, or troublesome diarrhœa.

False Pains.—About this time, too, griping pains, due to flatulence, are apt to take place, and are then called false pains. They are known by their coming on

with sudden violence, like the pains of colic, while true labour pains, on the contrary, are slight when first felt, become gradually stronger, until what is called the height of the pain is reached, and then die away by degrees. Again, false pains are less regular in their occurrence, and are felt mostly in the lower part of the front of the abdomen, while true pains are also felt in the back and loins. When a nurse is still in doubt whether her patient is suffering from flatulence, or is beginning to be in actual labour, she may place her hand upon the outside of the abdomen during one of the pains; if it is a true pain she will have no difficulty in feeling the womb contract under her hand.

There is another method of deciding, by internal examination, but that is beyond the province of the nurse, and must be left to the medical attendant.

The proper course for a nurse to take, when her patient is tormented with false pains, is to put her to bed, and apply a hot fomentation to the abdomen. If this does not relieve them speedily, she must send for the doctor, who will be able to prescribe a soothing draught if he thinks it necessary.

The "Show."—A sign that makes it probable that labour is still nearer at hand is the appearance of a slight gelatinous discharge, often streaked with a little blood. This is spoken of, in the lying-in room, as the "show."

CHAPTER VI.

Stages of Labour.—Labour is divided, for the sake of description, into three stages. The first of these is called the stage of dilatation of the mouth of the womb; the second lasts from the moment when that dilatation is completed up to the birth of the child; while the third, or last stage, includes the time from the birth of the child to the coming away of the after-birth, or placenta.

Labour-pains.—The so-called “pains of labour” are, in reality, contractions of the muscular walls of the womb. At the early part of labour the contractions are slight, and occur at long intervals; as labour advances, the contractions become longer and more energetic, and follow one another more quickly.

Bag of Waters, or Liquor Amnii.—The bag of waters is formed by the membranous coverings of the foetus, enclosing within them the liquor amnii, in which the child floats. During pregnancy, this fluid serves to preserve the child from injury; during labour, it forms a pouch at the mouth of the womb, and acts upon it like a wedge. Midwives know by experience that when the waters escape early, labour is sure to be tedious. It is easy to see why. The bag of waters being round and even, presses equally on all sides of the os uteri, or mouth of the womb, and this even pressure opens out the os more rapidly and easily

than the less even surface of the presenting part of the child.

As the os uteri opens more and more, and the end of the first stage draws near, the pouch formed by the membranes is pushed further into the front passage, or vagina, and, the pains becoming more violent, the membranes at last give way during a pain more severe than the rest, and so the waters escape. In natural labours this usually happens as soon as the os uteri is fully opened, and thus the first stage of labour is ended.

Second Stage Described.—The head of the child now begins to pass through the os uteri ; after a certain time, usually much shorter than that occupied by the first stage, it reaches the vaginal opening through which it gradually escapes ; and thus the child is born and the second stage is completed. The pains of the first stage are called “grinding pains,” and are different in character from those of the second stage, which are known as “forcing” or “bearing pains.” The cry which is called forth by the pains during the first stage is also different from the groan which escapes from the patient when the pains of the second stage commence. An experienced nurse knows from this circumstance alone that the first stage is over, and, as the sending for the doctor ought on no consideration whatever to be delayed beyond this period, it is a point of great practical importance.

The pains now become stronger and more frequent ; the patient, holding her breath and bearing down at each return of the pain, becomes hot and flushed, and breaks out into a profuse perspiration. At the end of each pain, the head of the child goes back a

little, so as not to keep up the strain to a hurtful extent. Nevertheless almost every pain marks an advance upon the one before it. This slight withdrawal of the head is frequently perceived by the patient herself, and unless explained to be natural and necessary, is apt to make her think she is not making any progress. There soon comes a point, however, when the head is so far expelled that it is no longer able to draw back between the pains. The intervals become shorter, and the pains more severe, until, at last, the head slips out altogether, and then the hardest part of the labour is over. The uterus usually rests now for a moment. Then the face of the child makes a little turn towards one of the patient's thighs, generally the right. This turn is for the purpose of bringing the child's shoulders into such a position that they may pass with the least difficulty. Then another strong pain comes, and the shoulders are expelled. The rest of the body gives little trouble, for no part of it is so broad as those which have already passed.

Third Stage.—The contractions of the womb now cease for a short time, varying from five to ten or twenty minutes, when a little pain is again felt, and the placenta and membranes are discharged, along with a small quantity of blood, with which a few clots are generally mixed.

Such is a brief account of the order of events in a perfectly natural labour.

CHAPTER VII.

Duties of a Nurse during Labour.—If the nurse is not already in the house, the appearance of the first discharge, or “show,” is a sufficient warning that she should be summoned. No time must be lost in obeying the call, for many women pass through all the stages of labour very quickly, especially if they have borne children previously, and it always makes an unfavourable impression if the nurse does not arrive until the labour is over. On reaching the house, the nurse should make the necessary changes in her dress, and appear before the patient ready for duty. She will soon have an opportunity of forming a good idea as to how far labour has advanced. If the pains have actually commenced, the patient will, before long, cease speaking, and suddenly seize hold of the back of a chair, or the nurse’s arm, or whatever is most convenient at the moment. Then the nurse will know that there is a pain. As soon as it is over she must ask when the pains began, how often they come on, whether the waters have been discharged, and other similar questions, in order that she may know what kind of message she is to send to the medical attendant, who ought at once to be informed that his patient is in labour.

Let me now suppose that the nurse has made sure that her patient is in labour, and that she has acquainted the medical attendant.

If the bowels have not been freely opened within the last six hours, it will be desirable to give a simple enema of soap and water. The emptying of the lower bowel will facilitate the labour, and will save both the patient and the attendant the annoyance caused by the passing of fæces during a later stage. This having been attended to, the patient may be allowed to sit up in a chair, or walk about the room, according to her inclination, provided it is clear that the labour has not yet reached its second stage. If it is night-time, however, it is better for her to remain in bed, in order that she may, if possible, get a few moments' sleep between the pains. During the early stage of labour it is of no use for a patient to bear down during a pain. Inexperienced and untrained nurses often encourage their patients to "hold their breath and bear down." This does but weary and distress the patient. It must always be left to the medical attendant to decide when bearing-down efforts have become desirable; for he alone can tell when the proper time has arrived to encourage them.

It is often a great relief for the nurse to support the patient's back, with her flat hand, during a pain. This should be done whenever it is requested.

Articles needed in the Lying-in Room.—In the meantime the nurse should see that all things are in readiness for the actual confinement; the following are always wanted :—

Basins.

Binder.

Cold cream or lard.

Napkins.

Needles and thread.
Nursery or safety-pins.
Olive oil.
Pieces of old linen.
Receiver.
Roller-towel.
Scissors.
Sponges.
Thread or strong worsted for tying the cord.
Towels.
Water, hot and cold.
Waterproof sheeting.
Puff-box and complete set of clothes for the baby.

In addition to the above it is advisable to have in the room some good brandy, a fan, a Higginson's syringe, a foot-bath, and a nursing apron.

The Binder is usually a piece of stout twilled cotton, two yards long, and from twelve to fourteen inches wide, made of double thickness by stitching the edges together. When no binder has been prepared, a small table-cloth or cotton sheet, suitably folded, answers the purpose very well.

A piece of bandage fastened to the lower edge or the binder behind, passed between the thighs outside the napkin, and tied to the binder again in front, serves the double purpose of preventing the binder from slipping up, and of keeping the napkin in its place.

The Thread or Worsted for tying the Cord must be made ready in the following way :—Six equal lengths, measuring three-quarters of a yard, are to be laid side by side, and arranged evenly. A knot is to be then made at a little distance, say two inches, from their

centre, and another one at an equal distance from the centre on the other side. The threads are to be again knotted at a little distance from each end. Having been thus prepared, the threads must be divided at their centre, that is, midway between the two knots first made, and then laid on the dressing-table, side by side with a pair of good scissors, ready for handing to the medical attendant at the proper moment.

The Flannel Receiver should be of double thickness, and large enough to wrap the child thoroughly. The flimsy receivers offered in some houses are only fit to protect a doll. A good warm flannel petticoat, or a cot blanket leaves nothing to be desired.

The Preparation of the Bed is a matter of considerable importance and ought to be attended to during the early part of labour. In this country women are delivered lying on the left side, with the knees drawn up towards the abdomen. The right side of the bed, therefore, is the one which requires preparing, and that part of it near the foot is preferable for several reasons. The upper part of the bed is thus kept clean and comfortable for the patient when the labour is over. Much help is also derived from being able to plant the feet firmly against the bed-post during the pains.

The mattress being uncovered, a large piece of mackintosh sheeting is to be spread over it, and upon this a calico sheet folded several times. Next to this should come the clean under-sheet, on which the patient is to lie, and upon that another piece of waterproof, large enough to reach above the hips; a folded blanket, and lastly a folded cotton sheet, both of which should reach for some distance above the hips,

so as to absorb the discharges, are to be then placed over this upper mackintosh, ready to be removed with it after the labour is over. Two pillows are then to be placed in the centre of the bed, so that the patient may lie with the upper part of the body directly across the bed, the hips being as near the edge as possible. The upper bed-clothing during labour should consist of a sheet, one blanket, and thin counterpane, which should completely hide from exposure every part of the patient's person, except the head and neck. A long roller-towel should be fastened to the bed-post at the patient's feet. Nurses often make the mistake of fixing this to the post at the opposite corner. A very little consideration, however, will make the inconvenience of this arrangement apparent. By grasping the end of a towel, attached in the way I have recommended, the patient pulls herself still closer to the edge and foot of the bed; whereas by pulling at a towel fastened to one of the posts on the further side of the bed, she drags herself away from the very position which it is most desirable she should preserve. The same objection, of course, applies to supplying the place of the towel by means of the hand of an attendant standing on the left side of the bed. This should never be encouraged, as it always has a tendency to displace the patient, and to render the assistance of the medical attendant more difficult.

Personal Clothing.—Amongst the working classes it is still too much the custom for women to be confined in their every-day dress. It is a dirty and extremely inconvenient practice.

As labour advances, and it becomes necessary for the patient to be placed in bed, she should put on a clean chemise and night-dress, which should be rolled up under the arm-pits out of the reach of the discharges, while the soiled chemise and night-dress should be slipped down from the arms and shoulders and loosely fastened round the waist, so as to be readily removed when the labour is over.

CHAPTER VIII.

The number of People in the Room.—It is very undesirable for a woman in labour to be surrounded by a number of friends and neighbours. A nurse is quite justified in insisting upon having only one other person in the room; this point may be gained without giving any offence by saying that it is a rule with her to make that stipulation in every case that she undertakes. In most cases the nurse herself is the only attendant that is really needed. Nevertheless it is not wise to object to the presence of one other person if the patient wishes it.

Necessity of Caution in Conversation.—A nurse must never allow herself to be teased into prophesying that the labour will be over by a certain hour. If such prophecies turn out incorrect, as they are most likely to do, the patient loses courage and confidence. A good kind nurse will never be at a loss for a few helpful and encouraging words as labour goes on, without having recourse to foolish promises. Let me repeat here what I said in the introductory chapter about gossiping, for it is during labour that the temptation to that indulgence seems to be strongest. A nurse's lips must on these occasions be sealed as to her past experiences, and especially as to those which have been unfavourable. If any friend unwisely introduces such topics, the nurse must at once change the subject.

Patient to be reminded to empty the Bladder.—It is well every now and then for the patient to be reminded to pass water, lest the bladder become full and act as a hindrance. When the waters have broken, the escape of a little gush with each pain often makes the patient think she is passing urine.

Food during Labour.—The best kind of food when labour has made some progress, consists of small quantities of beef-tea, milk, or tea. In the early part of labour when pains are slight and the intervals long, there is no objection to a little solid food if the desire for it is expressed. During the later stages, however, it is wiser to confine the patient to small quantities of fluid, so as not to overload the stomach. Women often ask for a drink of cold water, and many nurses fear to gratify the wish. A sip of pure water can never do harm; only it must be a "sip" and not a tumbler-ful. Let the patient be told that frequent small draughts assuage thirst far better than larger quantities. No stimulants must be allowed except when expressly ordered by the medical attendant.

Vomiting.—All midwives know that there is nothing to fear from the occurrence of vomiting; in fact they are accustomed to say that a sick labour is a safe one, and in old times used to go so far as to give the patient draughts, of a more or less disgusting character, to bring on vomiting. This is not done now-a-days, although we still look upon the appearance of this symptom as in no way unfavourable. If it occurs so frequently as to weary the patient, it is well to give a little iced effervescing water from time to time.

Cramp.—For the relief of cramp, the affected limb should be gently rubbed with the bare hand; taking care only to rub one way, from above downwards. The patient will often find great comfort from stretching the affected leg straight out, the front part of the foot being bent upwards towards the body. Many patients suffer very severely from cramp, throughout the greater part of labour.

Fomenting the Perineum.—At one celebrated lying-in hospital, it is a rule for the nurse diligently to foment the perineum in all first labours from the very outset of labour. I recommend this plan most strongly, as greatly lessening the risk of tearing, the skin being rendered softer and more yielding.

CHAPTER IX.

Duties during the Second Stage.—When the pains alter in character, compelling the patient to make efforts to bear down, the face flushes, and the skin becomes moist with perspiration, it may be concluded that the first stage is over, and if the medical attendant has not arrived, he must be summoned without delay. In the meantime the patient must be put to bed and allowed to remain there. The binder, napkins, and receiver must be spread near the fire in readiness. Now, for the first time, it will be right to encourage the patient to bear down and assist the pains.

Should the head press upon the perineum before the doctor's arrival, a warm folded napkin smeared with lard may be placed in the palm of the left hand, and the hand then gently pressed upon the bulging perineum, with the fingers directed towards the anus, so that the front edge of the perineum may receive the chief support. The object of this is to help the child's head to pass slowly and gradually forwards to the vaginal outlet, and also to prevent tearing of the perineum. At this stage the great point is to avoid doing too much. Nothing but harm results from trying to enlarge the opening by stretching the lips apart with the fingers, or from attempting to push back the edge of the perineum so as to allow the head to escape. Contrary to the popular belief, the attendant's duty is rather to keep

back the head by gentle pressure, than to hasten the expulsion. There is to be no pulling whatever ; nature is to be allowed to do her own work.

If the medical attendant be still absent when the head is born, the nurse must spread the flannel receiver close up to the vaginal orifice, and receive the head of the child upon her right hand, still keeping up gentle pressure upon the stretched perineum until the shoulders have passed out. Even then the body and legs must be left to follow of themselves, the nurse meanwhile holding up the parts which are already born. The upper bed-clothes should be now turned back sufficiently to allow the child to breathe ; this is to be done without any exposure of the patient herself. Now and then it happens that the child is born with the membranes unbroken ; they will in such cases be found drawn tightly over the little face, and will cause death from suffocation, unless quickly torn open, and the mouth freed. This unusual circumstance is known amongst poor people as being born with a veil or caul. Often a coil of navel-string surrounds the child's neck. This must be slipped over the head as soon as possible, lest the child should lose its life. A child usually cries out lustily as soon as it is born. This helps to fill the lungs with air, and is on that account rather to be encouraged than checked. If there is not the usual cry, the nurse must look whether there is anything in the mouth or over it, preventing the child from breathing properly. Sometimes there is some frothy mucus in the mouth which requires clearing away with the finger. It is useful, when breathing is delayed, to turn the child on its face, and give it a few gentle slaps.

The navel-string must not be tied until the breathing is established, unless it is quite evident that the child is still-born. The first ligature must be tied an inch and a half from the navel, and the knot must be pulled tightly two or three times so as to squeeze out of the way the jelly-like material which surrounds the blood-vessels of the cord. Otherwise the vessels may not be closed by the ligature, and fatal bleeding may occur while the nurse is attending to the mother. The second ligature is placed an inch further from the child than the first one, and the cord is then divided with scissors midway between the two. All this must be done outside the bed-clothes, lest some other part than the cord should be cut through in mistake. Now and then it happens that a nurse has to take temporary charge of cases where not the head, but the breech, passes out first. This mode of delivery is full of danger to the child. The nurse must not try to hasten matters by pulling, even when the legs are already born.

CHAPTER X.

Duties during the Third Stage.—The child, having been now separated, is to be wrapped in the receiver with the face alone exposed, and placed out of harm's way on the other side of the bed. The patient must be warned to lie perfectly still, and to wait patiently for the one or two insignificant pains which accompany the expulsion of the after-birth. These generally occur from ten to twenty minutes after the birth of the child. Meanwhile the nurse must provide the doctor with a basin to receive the after-birth, and one or two warm napkins. If there is still no medical man present, the nurse should pass her hand up between the thighs of the mother, and, spreading it out over the abdomen, ascertain whether there is another child, for the case may be one of twins. If such be the case, the news must be conveyed to the mother very cautiously, and with the assurance that the passage of the second child will be far less painful than that of the first. Supposing, however, no second child is to be felt, the nurse will do well to keep her hand laid upon the mother's abdomen, until a slight pain occurs, when she must spread her hand out like a fan and gently press the uterus so long as the pain continues. Meantime she is to take hold of the navel-string with the left hand, coiling it once or twice round the fingers, and, without pulling, is to hold

that hand ready to receive the placenta when it passes. Sometimes this takes place during the first pain, more frequently one or two more pains occur before the placenta and membranes are expelled.

If the uterus can be felt, under the right hand, hard, firm, and as small as a good-sized cricket-ball, the placenta, if it has not already made its appearance, will very likely be lying loose in the vagina. In order to make sure about this, the right hand may now be withdrawn, and the forefinger passed up by the side of the cord gently into the vagina. If the insertion of the cord into the after-birth can be easily and distinctly made out, it is pretty certain that the placenta has escaped from the uterus, and it may be carefully hooked down by the right forefinger while the cord is slightly pulled down by the left hand. As the placenta passes out, it is a good precaution to twist it round once or twice, so as to make a wisp of the membranes and bring them all away at the same time. A slight discharge of clotted and fluid blood usually accompanies the termination of the third stage. When the placenta and membranes have come away, the hand should be again placed over the uterus, in order to make sure that it is firm and well contracted. If instead of this being the case, it is felt to be large, soft, and uncontracted, firm pressure should be continued so as to excite contraction, and avoid the occurrence of flooding, which in such circumstances is greatly to be feared. Should a gush of blood make its appearance in spite of the pressure, the hand must still be kept over the uterus, and the pressure increased, cold wet cloths being in the meantime repeatedly applied with suddenness to the external

genitals. The doctor should, of course, be again summoned.

The uterus being firmly contracted, and the flow of blood having ceased, the thighs and surrounding parts are to be gently dried by means of a napkin, and a soft warm napkin laid smoothly against the vulva. If no flooding has occurred, the soiled chemise and night-dress may now be drawn down, and, along with the folded sheet, blanket, and upper mackintosh, removed from beneath the patient, who must not be permitted to make the slightest effort while this is being done. Then she may be slowly and gently rolled over on to her back, to allow of the application of the binder. In fixing the binder the patient should be exposed as little as possible. The binder, well-aired, must be rolled up to half its length, and the roll passed underneath the lower part of the patient's back. Being caught on the other side it is then unrolled, and having been smoothed out free from wrinkles, is so applied as to encircle the hips tightly, and the overlapping end is then secured by means of three or four good safety-pins. This done, the patient may be carefully lifted into her usual place in bed, the pillows having been duly replaced ready to receive her head. Lastly, a fresh warm napkin must be applied to the vulva, and the clean chemise comfortably drawn down into its place.

If, however, there has been any flooding, the patient, after the bandage has been tightened, must still remain undisturbed for some time after the discharge has ceased, the nurse from time to time examining the napkins to see if there has been any *return* of bleeding.

When the medical attendant is present, many of the duties above enumerated devolve upon him ; the duty of the nurse being to take care that everything is ready to hand.

Separating the Knees.—Sometimes she is directed to raise the patient's right knee during the birth of the child ; this is to be done by passing the hand under the clothes. A pillow should not be used for this purpose, unless specially ordered.

Pressure over the Womb.—During the third stage the attendant may desire the nurse to make pressure upon the womb, so as to help it to contract. To do this she should stand behind the patient at the doctor's left hand, and, passing the hand under the bed-clothes, she should place it on the naked abdomen, where she will feel the round, firm body of the uterus above the pubes. Spreading out her hand over this organ, she should keep up a steady pressure downwards and backwards as long as the attendant desires it.

After the labour is over, the nurse must see that the after-birth is burnt on the kitchen fire.

Convulsions, coming on during labour, are always alarming, and place the patient's life in great danger. No time should be lost in summoning the medical attendant, if they appear before his arrival. In the meantime all that the nurse can do is to keep her patient lying flat down ; to see that there is no tight clothing about her head or chest ; to prevent biting of the tongue, by pushing it, if possible, behind the teeth, and placing a cork or piece of india-rubber between them ; to admit plenty of fresh air into the room ; and lastly, to restrain the meddlesome interference of the bystanders. It is altogether useless to sprinkle the face with water, to rub the hands, to

apply smelling salts to the nose, or to force water or stimulants down the throat while the patient is struggling and unconscious. When the fit is over, if the doctor has not arrived, the nurse will be doing right if she administers a simple soap-and-water enema.

Fainting during labour should always lead to a suspicion that there is some loss of blood going on, and the medical attendant ought to be immediately summoned, even if there is no blood to be seen externally, for internal bleeding may be going on all the time. The important point to remember about fainting is, that the patient is on no account to be raised up, however much she may desire it. The level posture, plenty of cool fresh air, sprinkling a little water on the face, and firm, steady pressure with the hand over the uterus, comprise all that is desirable for the nurse to do in the way of treatment. If there is external hæmorrhage, the nurse must try to control it in the way described on another page.

Pendulous Belly.—Some women, who have borne children previously, suffer from a falling forward of the womb, constituting what is known as “pendulous belly,” or, in obstetrical language, “anterior obliquity of the uterus.” When a woman, whose abdomen hangs forward in this way, comes to be in labour, she requires putting to bed at a very early stage, and must either be told to lie flat on the back, or must be supported in the half-sitting posture. In some of these cases it is safer for a patient to go through the whole labour lying on her back.*

* Dr. Radford, to whom I am indebted for the recommendations contained in this paragraph, reminds me that he has recorded two fatal cases of anterior obliquity, in each of

Where this condition is present the nurse should put on a broad bandage at a very early period of the labour, and tighten it as labour advances. Indeed, after rupture of the membranes, and discharge of the waters, this bandage should be constituted a regulating bandage in the following way :—The end lying upon the bed is to be fastened to the bedside, so as to be a fixture, while the other end is held obliquely by the nurse, and gradually tightened as the child descends into the pelvis. The direction of the pressure will thus be slightly upwards as well as backwards.

Such a well-regulated pressure effectually assists the entrance of the child's head into the pelvis.

which rupture of the uterus took place at the very moment of the patient rising to her feet during labour. See "Trans. Obstet. Soc. Lond.," vol. viii. pp. 26 and 38.

He originally suggested the mode of support described in the text, by what he terms "a regulating bandage," in order that the uterus might be safely guided into, and maintained in, the axis of the brim. See "Assoc. Med. Journ.," Feb. 16th, March 1st, and April 12th, 1856.

CHAPTER XI.

Management of the New-born Child: the first Washing.—

After making the mother comfortable, the next duty of the nurse is to attend to the washing of the child. This should be set about before the doctor leaves the house, in order that he may carefully examine the child while lying on the nurse's lap. For the washing, the nurse requires a foot-bath, or a basin at least two feet long by one foot broad and one foot deep, so that the child may be placed, with the exception of the head, entirely under water for a minute or two. She must also be provided with a piece of soft flannel rag, some olive oil, a piece of good, un-irritating soap, and, for the dressing, in addition to the clothes, a needle and thread, some safety-pins, and a piece of linen rag six inches square, with a hole cut in its centre large enough to admit the navel-string. Sitting at a convenient distance from a fire, she then proceeds to unfold the flannel wrapper, and anoint the child's skin with warm olive oil wherever it is covered with the white greasy material usually present on some parts of the body. Then the child is to be put into the water, the temperature of which should be about 90°, and the head supported on the left hand out of the water. After having rested there for two minutes it is to be taken on to the lap, and the washing with flannel and Castile or glycerine soap

commenced. The eyes are always to be most carefully cleaned first, then the head, and afterwards the remainder of the body, great pains being taken to cleanse the little wrinkles at the various joints. After gently dabbing the skin with a soft warm towel, starch powder must be applied by means of the baby's puff to the whole skin, and especially those parts near the joints, where chafing is most likely to occur, viz., under the knees and arm-pits, in the groins, and between the thighs. It is a good plan to burn the piece of flannel used for the first washing; afterwards both a piece of flannel and a sponge will be found useful. The skin having been now well washed, dried, and powdered, the square of old linen is to be held near the fire for a minute, then the navel-string is to be slipped through the hole in the middle of the rag, in which it is to be folded, and turned upwards, so as to lie upon the child's abdomen. The flannel binder serves to keep the remains of the navel-string from being pulled or dragged, until it separates on the fourth or fifth day, or later.

Daily Washing and Bathing.—Up to the time of this separation the child must be washed from head to foot, night and morning, on the nurse's lap, with soap and tepid water. Afterwards, when there is no longer any fear of injuring the navel, the child should be dipped for two minutes at least once a day, in the morning, just as was mentioned in describing the first washing. The evening washing may continue to be done on the lap of the nurse. Whenever a napkin, or, as it is often called, a double or diaper, is removed, the parts protected by the napkin must be cleansed by sponging with a little soap and water, and

then thoroughly powdered, so as to avoid eruptions and soreness. This rule holds good whether the bowels have acted since the last napkin was applied or not, although in the former case the rule is particularly necessary.

It is part of a monthly nurse's duty to wash and dress the baby during the time she stays in the house, and she should, for this purpose, be provided with a large soft flannel apron, which must be carefully dried each time it is used.

Dress.—In dressing a baby, a nurse should always reject a body-binder made of any other material than flannel, because flannel, when wet with the urine, does not chill the skin. If possible no pins at all should be used about a baby; two or three stitches are easily put in, instead of the pins, and the napkins may be kept on by means of tapes and loops. Where pins are used, they should be patent safety-pins.

The baby's clothes should be warm without being heavy, and should fit loosely, so as to allow the organs to have free play, and the blood to flow unhindered.

Secretions, &c.—The medical attendant must always be informed when he makes his first after-visit, whether the infant has passed urine and whether the bowels have acted; also as to any marks or other peculiarities that may have been noticed. The state of the eyes, too, should be narrowly watched, and any unhealthy appearance at once reported to him.

Food.—It is a mistake to give a new-born baby butter and sugar, or other similar compound. For the first twelve hours at least, and indeed for a much longer time, the child will take no harm if left unfed.

The proper course however is to apply it to the breast a few hours after birth; that is, when the mother has recovered a little from the fatigue of labour. The breasts will probably not fill with milk for twenty-four or thirty-six hours, or even a little longer; but there is generally a little thick secretion of creamy fluid, called the colostrum, much earlier than this, of which it is good for the mother to be relieved, and which acts as a gentle laxative upon the child. The early application of the child is to be recommended on all grounds. It helps to form the nipples, and it renders the flow easy from the first; while, on the other hand, it provides the child in the majority of cases with all the food that is required during the first day or two, and so saves the necessity of artificial feeding, and also teaches the child how to apply itself to the breast, a lesson learnt less readily if fed by hand before being allowed to suck.

The child should be put to the breast with clock-like regularity. Until the flow be fairly established this should be done every four hours; afterwards, for the first month, every hour and a half in the day-time and every four hours in the night-time. In the day-time the child should be awake at the hour for feeding; he will presently fall asleep again after his meal. In the night-time he need not be disturbed if he should remain asleep a little beyond the four hours. Many babies will sleep for six hours in the night without awaking, and this without suffering in the least from the long fast. It is quite as important that an infant should not be fed oftener than has been here stated, as that he should not be kept longer without

being fed. Babies very soon learn habits of regularity. Many women put the child to the breast whenever it cries, forgetting that crying is the only way in which it can express any of its wants, and that it does not at all follow that it is hungry; on the contrary, it is much more likely that it is in pain, or that its diaper wants changing. A baby's stomach requires intervals of rest, just as our own stomachs do, only the intervals must of course be much shorter. It is important, from the very first, to apply the child to each breast in turn.

Where the secretion of milk is long delayed and it becomes consequently necessary to feed the baby, the proper food is good milk from the cow, mixed with an equal quantity of warm water, and moderately sweetened. This is to be given until the mother is ready to nurse. Bread and oatmeal gruel are not fit for newly-born infants; they irritate the stomach and bowels, and cause griping and flatulence. In short, no other food than the mother's milk or diluted cow's milk should be ever given during the first month of life, except under medical advice.

It is surprising how many nurses think they ought to give castor-oil to the newly-born. This is an unnecessary and injurious practice. The colostrum, or first milk from the mother's breast, is Nature's medicine. If other medicine be necessary, it should be prescribed by the medical attendant.

When the mother has not enough milk to satisfy the child, nursing may be combined with hand-feeding; this is to be preferred to hand-feeding alone. The additional food should consist entirely of good *sweetened* milk diluted with an equal quantity of

warm water. After the first month the quantity of water requires to be gradually lessened.

In case the mother cannot nurse her child, the next best way of feeding it is to obtain a good healthy wet-nurse whose child is not much older than the one she is to nurse. A nursing woman requires plenty of good milk; she should live well, taking a glass of ale or porter with dinner and supper, but never between meals.

It may be that a wet-nurse cannot be obtained, and then hand-feeding becomes necessary. For this purpose good milk (from one cow if possible), diluted with water and sweetened, is the proper substitute for breast-milk. Arrowroot, corn-flour, bread, and rusks are all unsuitable at this tender age, and afford far less nourishment than milk. Now and then the curd-like character of the stools shows that the milk disagrees; if a change of dairy is not sufficient to set matters right, then other food must be given, as selected by the medical attendant.

The concentrated Swiss milk sometimes is digested better than fresh milk. If neither agrees, then I usually have recourse, in my own practice, to Liebig's food for infants (Mellin's), which I have found a most useful preparation.

Feeding Bottles.—The custom of using feeding-bottles with india-rubber tubes has recently become very prevalent. These tubes are difficult to keep clean, and feeding-bottles with teats only are much to be preferred. There should always be two bottles, one to be kept under water, while the other is in use. A mere drop or two of milk adhering to the bottle or tube will often be sufficient to turn the next supply

sour ; and sour milk is the cause of wind, colic, indigestion, and much sickness and suffering. The bottles should therefore be diligently washed with warm water immediately after use.

There is another great objection to tubes. Children are often placed in their cots with the tube in their mouth and the bottle by their side. Thus all regularity in feeding is done away with, and the health must necessarily suffer. Bottles with teats only, require to be held by the nurse, which is a great advantage.

Sleep.—From the first, children should have their own separate little bed or cot, unless the weather is very cold. During the first month or two a healthy child sleeps the greater part both of day and night. The practice of putting children to sleep on the lap before placing them in their cot is very unwise. They should be taught to go to sleep in their little beds ; a lesson learnt without any difficulty or hardship if taught from the first. No soothing-syrups or any kind of cordial or medicine should on any account be given, except under medical advice. Every year children are sacrificed by the neglect of this rule.

Fresh Air.—Babies require abundance of fresh air. Nursery-windows should be opened very frequently, and the room kept sweet and fresh. After the first two or three weeks children should be carried in the arms out-of-doors in fine weather every day. In winter they should be well wrapped up, and in summer the head should be carefully protected from the rays of the sun. Neglect of this rule may produce serious and even fatal disease.

Separation of Navel String.—When the navel-string

separates a small round piece of linen should be covered with a little simple ointment and applied to the navel. If bleeding occurs the medical attendant should be told without delay, for occasionally children die from this cause; he should also be informed if the navel project more than usual. Where the navel is an unusually long time in separating, no force is to be used; all will go on properly if left to nature.

Swelling of the Breasts in the Newly-born.—Occasionally the breasts of new-born children become swollen and inflamed, and sometimes, without being inflamed, they swell and pour out a few drops of milk-like fluid. In either case the nurse must carefully avoid rubbing or squeezing them—contenting herself with the application of a pad of wet lint, covered with a piece of oiled silk, until she receives directions from the doctor.

Thrush.—The appearance of the “thrush,” a number of little white spots on the tongue, inside the lips and cheeks, and on the roof of the mouth, is an almost certain sign that the child’s food is in some way unsuitable. It ought, therefore, invariably to be reported to the medical attendant. The best local application is the glycerine of borax, which is to be painted over all the affected places by means of a small camel’s hair brush two or three times a day.

CHAPTER XII.

NURSING DURING THE PUERPERAL STATE.

Treatment during the first Few Hours.—After the patient has been made comfortable in the manner already described, it is above all things desirable that she should have several hours of undisturbed rest, and, if possible, sleep. There is a curious notion, amongst old-fashioned nurses, that a woman ought not to be allowed to fall asleep directly after delivery. This is altogether a mistake. Sleep is to be encouraged by every means in our power. To this end, the room should be kept exceedingly quiet, and the blinds drawn down so as to subdue the light. In this way the patient will be best enabled to recover from the exhausting effects of labour.

In the meantime the nurse must keep an eye to the patient's face. If she observes that it is becoming unusually pale, she must at once examine the napkin, in order to ascertain whether there is any flooding.


For the first few days the patient will suffer more or less from after-pains. If they are very severe, the medical attendant must be informed. As a rule, no after-pains occur after a first confinement.

The proper food to give directly after labour is a cup of tea or a glass of warm milk. If the patient prefers to wait a little before taking anything at all, there can be no harm in allowing her to follow her inclination.

When the patient has had a few hours' rest, and has recovered from her exhaustion, the child should be applied to the breast. The nipples can be drawn out much better before the breasts become filled with milk than afterwards.

Not more than six hours should elapse after labour before the patient is reminded to pass water. She should not be allowed to wait until she feels a desire to do this, for, under these circumstances, the bladder may be quite full without the patient having any inclination to empty it. At the end of six hours then, if not before, the slipper bed-pan must be used, and the patient must make an effort to relieve the bladder. If she finds herself unable to use the slipper, she may be allowed to turn herself gently on to her hands and knees, and in that position she will almost always succeed in passing water into an ordinary chamber utensil. The steam from a little warm water previously poured into the vessel will frequently be of assistance. Should she, even after changing her position, still be unable to pass any urine, she must not try to force it, but lie down again, rest a little longer, and then make a further effort. If, however, no urine should have been passed during the first twelve hours after labour, the medical attendant must be at once informed, as it will now be necessary to draw it off by means of the catheter. The patient herself frequently imagines that she has passed urine, when she has not done so; so that the nurse, knowing that this is apt to be the case, must not be satisfied without seeing for herself the contents of the vessel after its removal.

Lochia.—For the first few hours after delivery, the vagina and external genital organs are very sore and painful, and the discharge consists of pure blood. Ten or twelve napkins are required during the twenty-four hours immediately succeeding labour. On the second day the discharge becomes less, and afterwards diminishes day by day, changing at the same time from pure blood to a thick greenish-yellow fluid, and lastly to a thin serum, like soiled water. The discharge always has a peculiar smell; if, however, the smell becomes offensive, the medical attendant should be informed. Similarly he should be told if, after having once ceased to consist of pure blood, the discharge should again assume that character. The discharges after labour are termed the *lochia*; they sometimes last only a few days and at other times continue for three or four weeks. They vary, too, in quantity in different women, even when they are quite natural and healthy. When they have passed through the changes I have named, they ought presently to cease. If instead of doing so, they pass into a discharge of thick yellow matter, an examination becomes necessary and the medical attendant must therefore be informed. On the other hand, it is not very unusual for the *lochia* to cease rather early and suddenly. Now although this state of matters constantly gives rise to considerable alarm, both on the part of patient and nurse, it need not do so if there is no other sign of ill health, such as shivering, thirst, and feverishness. If these be absent, the mere stopping of the discharge need occasion no anxiety.



Necessity of the Level Posture.—For the first three days after confinement a patient should on no account be raised up in bed into the sitting posture, lest an attack of flooding should come on. There is not the same danger in allowing her to turn on to the hands and knees; indeed I have already said that this position may be resorted to in the event of any difficulty in using the slipper for passing water. Not only may a neglect of this precaution result in severe hæmorrhage, but fainting, and even sudden death, have occasionally been known to follow. After the first three days this rule as to the level position may be relaxed a little, by propping the patient up with pillows, or a bed-rest, while she is taking food. At all other times, however, she must still lie flat, until the ninth day, when she may be assisted or carried to a couch, for an hour, or an hour and a half (see p. 9). For the first day or two of leaving bed, very little dressing ought to be attempted; the patient being kept from being chilled by putting on a warm dressing-gown, and by throwing a good blanket over the shoulders and another round the legs. The length of time she is allowed to be out of bed is to be increased day by day; and on the twelfth or thirteenth day she may be fully dressed in her ordinary clothes. The temperature of the room must be regulated most carefully when the patient first gets up; for it then becomes of more importance that the room should be well warmed than while she remained altogether in bed.

Leaving the Lying-in Room.—If there is a room on the same floor suitable for the patient to sit in, she

may take advantage of it as early as the fourteenth day; the lying-in chamber being meanwhile thoroughly freshened by opening the windows, spreading out the bed-clothing, and leaving the mattress or bedding uncovered for some hours. If on the other hand she will have to go downstairs on leaving her own room, it will be prudent to wait a few days longer.

Going Out-of-doors.—For the first month it is better for patients in this country to make themselves content indoors. If it happens to be mild, bright, summer weather, and the patient's recovery has been rapid and satisfactory, it may now and then be allowable for her to take a short walk or drive a day or two earlier. In ordinary cases, however, it is wiser not to go out until the end of the month.

Change of Linen and Washing.—After confinement a patient's linen requires to be frequently changed, both for health's sake and her own comfort. The same night-dress should not be worn longer than one, or, at the most, two days. The patient must on no account be allowed to sit up or make any exertion while the clothes are being changed; the nurse must take off the soiled clothing by slipping the sleeves from one arm, gathering up the clothes on that side into a handful, passing them gently over the head, and lastly drawing down the sleeves of the other side. The clean linen, well aired and ready to hand, must then be put on, one article at a time, without the patient raising herself in the least.

A clean binder must be applied with moderate tightness every morning; the nurse should once or

twice during the day see to it that it has not slipped up, or become wrinkled or loose. The first binder should always be placed next to the patient's skin ; after the first twenty-four hours this is a matter of less consequence.

Every morning the patient's hands and face must be washed, and the hair straightened, as far as it can be, without raising the head. The hair should always be dressed during the early part of labour in such a way that the continuous lying in bed after the confinement will not drag upon it, or entangle it more than necessary. Attention to this point is not at all beneath the dignity of a nurse, and will add greatly to the comfort of her patients.

When the hands and face have been attended to, the patient should each morning be made to lie on her left side, near the bed's edge, with the knees drawn up as was described in the chapter on the management of labour, in order that the nurse may thoroughly cleanse the external genitals by means of a sponge and a little warm water. To the water, a few drops of Condyl's fluid, sufficient to give it a decidedly pink tint, may often be added with advantage. The bed should be protected by means of a mackintosh and folded sheet.

For the first few days, while the lochia are somewhat abundant, it is well to perform this little office again in the evening.

Vaginal injections are only to be used under medical direction ; the mode of giving them has been already described.

Should the nurse discover, while bathing the

patient, that the perineum has been torn during labour, she must quietly mention it to the medical attendant at his next visit; and so too if she finds any piles present. In the event of the patient complaining of severe pain from piles, the nurse must frequently foment the part, or apply a bread poultice, until the doctor has been told and has left special directions.

Avoidance of Excitement.—The mind of a lying-in patient must be kept at rest equally with her body. No painful news, or other exciting or disturbing influences, should be allowed to reach her. The visits of friends to the lying-in room must be entirely forbidden, except in the case of those who have obtained special permission from the medical attendant.

It should never be forgotten that a peculiar and distressing form of mental derangement is liable to attack lying-in patients. Hence, if a nurse finds her patient irritable in temper and difficult to manage, she must avoid anything like contention or direct contradiction. By a firm, quiet, decided manner, a good nurse will always be able to carry her point without exciting her patient's anger.

Occupation.—As the patient grows a little stronger, there can be no objection to her occupying herself while in bed, if she is wishful to do so, with a little plain sewing or fancy work. This may be varied now and then with a little reading. In this way the time may be made to pass much more agreeably than is often the case.

Diet.—It is not now-a-days thought necessary for lying-in patients to be kept for a whole week on

oatmeal-gruel, although, as one amongst other forms of nourishment, the basin of gruel deserves an important place. The diet at this time should be nutritious and plentiful, and regulated, as to its kind, very much according to a patient's inclination. I often tell my own patients that if they will cheerfully submit to my wishes as to lying down and keeping in bed, they shall have plenty of liberty in their choice of food.

Many medical men have rules of their own, and nurses must always be prepared to follow their directions implicitly.

When the nurse is left to her own discretion, she will find that her patients will recover their strength most quickly by being allowed to have some variety in their food from the beginning. Boiled milk should always enter largely into the dietary of a woman who intends to suckle her child. An occasional cup of good black tea is generally very grateful, with or without a little biscuit, toast, or bread and butter. From the first, beef tea, chicken, mutton, or veal broth, rice-caudle, and other simple fluids, are perfectly allowable. If all is going on well, and a patient expresses a desire for some more solid food, even on the second or third day, there is no harm in giving a little sole or whiting, a slice of chicken or tender roast beef, or a mutton chop. A glass of sherry, or half a glass of beer, may be taken with the solid meal, if the patient is accustomed to it and desires it; beyond this no stimulants of any kind should be given, except under medical direction.

The Bowels.—A nurse should not give opening

medicine on her own responsibility. The medical attendant will order what is necessary, and state when it is to be given. In many instances he will, no doubt, prescribe a simple soap and water enema.

Secondary Hæmorrhage.—Whenever an attack of flooding comes on after the doctor has left the house, or, indeed, at any time during the puerperal period, the nurse must send to request his immediate attendance, always taking care to give her reason for sending, in order that he may come provided with what is necessary. In the meantime she must quickly unfasten the binder, and make firm pressure on the womb, which she will have no difficulty in finding, as it will not yet have had time to return to its natural position, deeply in the pelvis. She must also apply cloths dipped in cold water, or in vinegar and water, to the external genitals, keeping them against the parts for a minute or two at a time. Cool, fresh air must be admitted through the open window. The patient must be kept strictly lying down, with the head and shoulders low, and her face must be fanned by an assistant. Where the flow is great it will be right for the nurse to try to check it, by taking a dry napkin and pressing it firmly with her hand against the external genitals, while the other hand is still engaged in compressing the womb from above.

Rigor.—The occurrence of a shivering fit, especially if it is a severe one, or is followed by others, ought always to be regarded seriously. No time should be lost in acquainting the medical attendant, and the nurse must meanwhile do all in her power to produce a feeling of returning warmth in her patient. For

this purpose, a warm bottle should be put to her feet, an additional blanket thrown over her, and a cup of warm tea given to her to drink. This event is so often the sign of approaching illness that, when it has once shown itself, the patient should be watched with the utmost anxiety.

Suckling.—In the chapter on the management of the infant, it has been already stated that the child should be put to the breast as soon as the patient has recovered from the fatigue of labour, in order that the nipples may be drawn out before the breasts become full. This precaution is, of course, chiefly important after a first confinement.

The secretion of milk is not usually established until the second or third day; now and then, however, it makes its appearance much earlier. This event is sometimes accompanied with a little feverishness, which soon passes off, and is of no great moment. When the breasts are becoming full and hard, they should be supported, as in a sling, by a handkerchief tied over the shoulder, and not rubbed, but covered simply with a double fold of wet lint and a piece of oiled silk, until the medical attendant gives special directions. If the patient has borne other children, this condition will generally be speedily relieved by the application of the child at regular intervals. Nurses must beware of meddling too much with the breasts; it is much more common to find that they have been doing too much than too little.

Some mothers are in the habit of going to sleep for the night with the baby in their arms. This is

bad both for mother and child, disturbing the rest of each, and teaching the child a very bad habit. Besides which it occasionally leads to fatal consequences, from accidental overlaying of the infant. The healthiest babies may be very early taught to sleep for four or even six hours in the night-time, say from midnight to four or six o'clock, without needing to be fed.

Where it soon becomes clear that the mother has not milk enough even partly to suckle her child, it is unwise to keep putting it to the breast, as it only irritates, and is very likely to set up inflammation and abscess.

Other cases are occasionally met with, in which the milk is constantly running away, and wetting the night-dress. This condition requires medical attention, and should be reported to the doctor at the earliest opportunity.

Depressed Nipples hinder nursing very much, if the greatest care is not taken to draw the nipples out, by the application of the child, or the occasional and cautious use of the breast-pump, before the breasts fill.

Sore Nipples.—The best way of hardening the nipple before labour comes on, has been already described. When suckling has commenced, the nipples and surrounding parts should be carefully washed each time the child leaves the breast. These are the means most likely to prevent soreness.

Sore nipples are often a source of almost agonizing pain, whenever the child is applied; and are frequently the starting-point of breast-abscess. On the

very first complaint, therefore, the doctor should be informed, so that the nurse may learn from him what means to adopt.

Whatever be the application prescribed, it should be carefully washed off every time the child is put to the breast.

When nipple-shields are ordered, it will be best, unless the medical attendant mentions some special form, to obtain shields made of one continuous piece of india-rubber. Many of those found in the shops consist of an india-rubber teat, fastened to a broad, flat ring of wood, or other hard material. These are greatly inferior to the kind I have just alluded to, in which the broad part, which is to fit over the breast, is of soft india-rubber, all in one piece with the teat itself.

Inflamed Nipples.—When the nipples are swollen and red, as well as painful, the nurse must keep a bread-poultice applied until she receives the doctor's instructions.

Inflamed Breast.—As soon as a nurse notices a patch of redness on a patient's breast, and finds that the skin, at that spot, is painful and tender to the touch, she should at once acquaint the medical attendant, and in the meantime apply a double fold of warm wet lint, covered with a piece of oiled silk large enough to come well beyond the lint on all sides.

Whenever the doctor, finding that matter has formed, proposes to open the abscess, a nurse should use every effort to persuade her patient to submit, for the speedy removal of the matter will save a great deal of unnecessary suffering.

Dispersion of Milk in the event of not Suckling.—When the child is still-born, or is to be fed by hand, the breasts usually give little trouble if properly managed.

In these cases belladonna plasters are frequently prescribed. They should be large enough to cover the breast. A hole is to be cut in the middle of each plaster for the nipple, and the plasters must be warmed before the fire before they are applied. They may be allowed to remain on until the breasts have entirely lost their fulness.

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